

GRE

MAY 2019

PROJECT ID:

4100-38-60

COUNTY:

CALUMET

ORDER OF SHEETS

Section No. 1	Title
Section No. 2	Typical Sections and Details
Section No. 3	Estimate of Quantities
Section No. 3	Miscellaneous Quantities
Section No. 4	Right-of-Way Plat
Section No. 5	Plan and Profile
Section No. 6	Standard Detail Drawings
Section No. 7	Sign Plates
Section No. 8	Structure Plans
Section No. 9	Computer Earthwork Data
Section No. 9	Gross Sections

TOTAL SHEETS = 104



DESIGN DESIGNATION

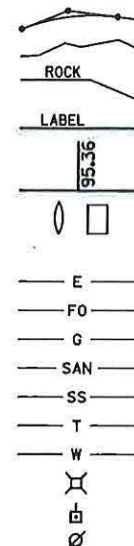
A.A.D.T. (2019)	=	3,400
A.A.D.T. (2039)	=	3,800
D.H.V.	=	23.9
D.D.	=	60/40
T.	=	28.4%
DESIGN SPEED	=	55 MPH
ESALS	=	2,600,000

CONVENTIONAL SYMBOLS

PLAN
CORPORATE LIMITS
PROPERTY LINE
LOT LINE
LIMITED HIGHWAY EASEMENT
EXISTING RIGHT OF WAY
PROPOSED OR NEW R/W LINE
SLOPE INTERCEPT
REFERENCE LINE
EXISTING CULVERT
PROPOSED CULVERT (Box or Pipe)
COMBUSTIBLE FLUIDS
MARSH AREA
WOODED OR SHRUB AREA

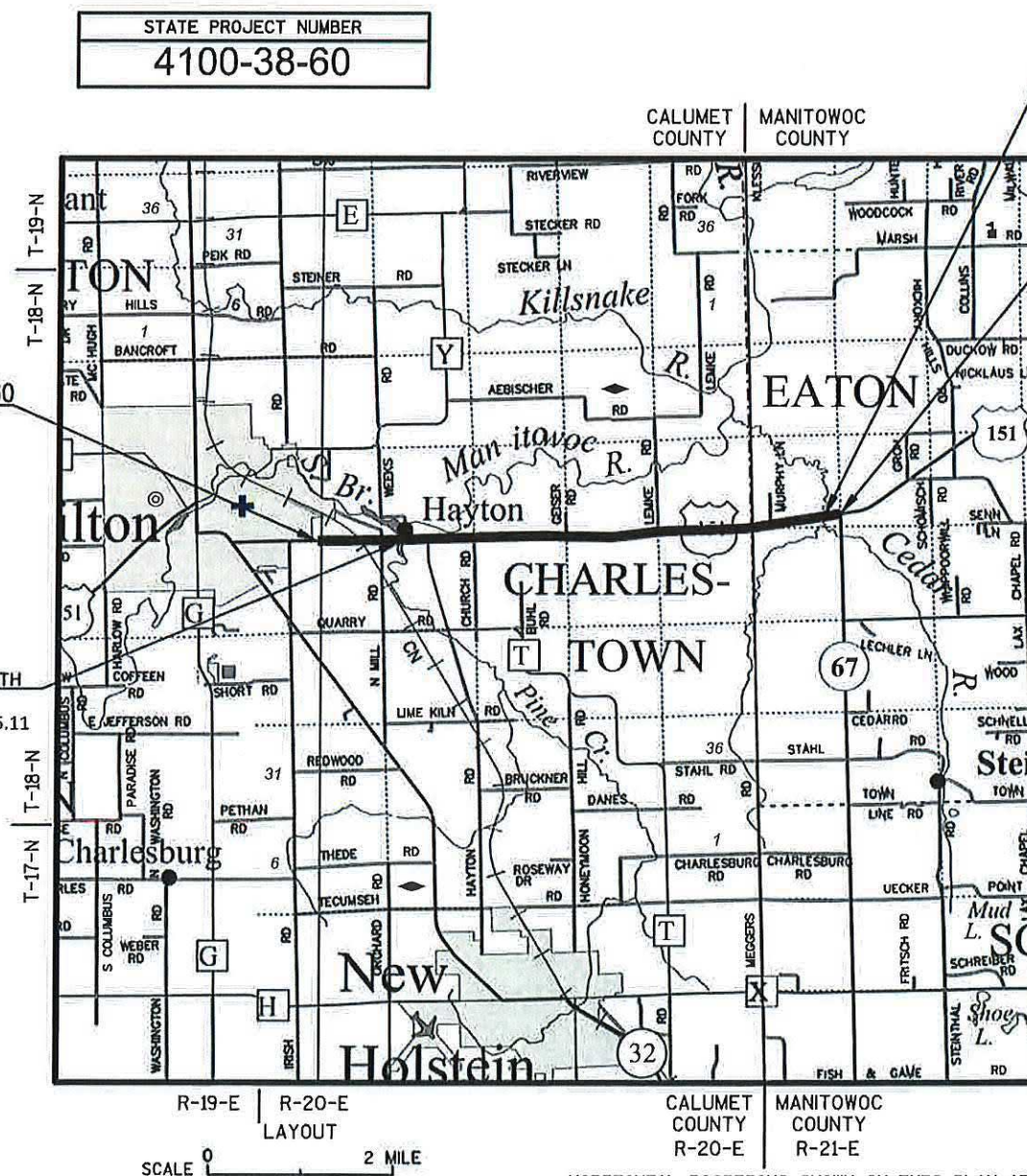


PROFILE
GRADE LINE
ORIGINAL GROUND
MARSH OR ROCK PROFILE (To be noted as such)
SPECIAL DITCH
GRADE ELEVATION
CULVERT (Profile View)
UTILITIES
ELECTRIC
FIBER OPTIC
GAS
SANITARY SEWER
STORM SEWER
TELEPHONE
WATER
UTILITY PEDESTAL
POWER POLE
TELEPHONE POLE



BEGIN PROJECT 4100-38-60
STA. 73+51.69
Y = 475,191.829
X = 898,808.940

NET EXCEPTION TO CL LENGTH
B-08-0013
STA 118+51.82 - STA 119+25.11



TOTAL NET LENGTH OF CENTERLINE = 5.57 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, CALUMET COUNTY, NAD83 (2007), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO NAVD88 (2012).

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
CHILTON - MANITOWOC
(INDUSTRIAL DRIVE - STH 67)
USH 151
CALUMET COUNTY

STATE PROJECT NUMBER
4100-38-60

STATE PROJECT

4100-38-60

FEDERAL PROJECT

PROJECT

WISC 2019295

CONTRACT

1

NET EXCEPTION TO CL LENGTH
B-36-0120
STA 361+12.24 - STA 361+64.33

END PROJECT 4100-38-60
STA. 368+88.21

ORIGINAL PLANS PREPARED BY



2901 International Lane, Suite 300 Madison, WI 53704
608-242-7779 1-800-446-0679 Fax: 608-242-5664



DATE: 1/14/19
(Professional Engineer)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor MSA PROFESSIONAL SERVICES, INC.
Designer MSA PROFESSIONAL SERVICES, INC.
Project Manager TIMOTHY VERGHAGEN
Regional Examiner
Regional Supervisor CHAD DEGRAVE

APPROVED FOR THE DEPARTMENT

DATE: 1/15/2019
(Signature)

GENERAL NOTES

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 120 lb/sy/In.

THE LIMITS OF PAVEMENT REMOVAL ON SIDE STREETS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD BY THE ENGINEER.

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

NO TREES AND SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

THE EROSION CONTROL ITEMS SHOWN ON THE PLANS, ARE AT SUGGESTED LOCATIONS. THE ENGINEER SHALL DETERMINE THE EXACT LOCATIONS OF EROSION CONTROL ITEMS. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY. THE CONTRACTOR WILL REMOVE ITEMS AT THE ENGINEER'S DIRECTION.

EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS AND MAINTAINED AS DETERMINED BY THE ENGINEER.

NUMBER, LOCATION, AND SPACING OF TRAFFIC CONTROL SIGNS AND DEVICES, AS SHOWN IN THE PLANS, SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE CONTRACTOR WILL BE RESPONSIBLE FOR RESTORING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATIONS OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS, INCLUDING GRADING, TOPSOILING, SEEDING AND INSTALLING EROSION MAT.

REMOVING APRON ENDWALLS CONNECTED TO CULVERT PIPES SHALL BE PAID FOR UNDER "REMOVING SMALL PIPE CULVERTS".

RIGHT OF WAY LINES SHOWN ARE FROM PLAT DATA AND FROM CALUMET AND MANITOWOC COUNTY GIS.

INDEX OF TYPICAL SECTIONS & DETAIL SHEETS

- GENERAL NOTES
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- TRAFFIC CONTROL OVERVIEW
- DETOUR SIGNING DETAIL

UTILITIES

COMMUNICATIONS
CHARTER COMMUNICATIONS
ATTN: DAN EWALD
PHONE: (414) 207-0500
E-MAIL: donald.ewald@charter.com

COMMUNICATIONS
FRONTIER COMMUNICATIONS OF WI LLC
ATTN: CAL KLADE
1851 N. 14TH AVENUE
WAUSAU, WI 54401
PHONE: (715) 847-1525
E-MAIL: calvin.klade@ftr.com

ELECTRIC/TRANSMISSION
ATC MANAGEMENT, INC.
ATTN: TONY MARCINIAK
W234 N2000 RIDGEVIEW PARKWAY COURT
P.O. BOX 47
WAUKESHA, WI 53187-0047
PHONE: (262) 506-6814
E-MAIL: tmarcniak@atclic.com

ELECTRIC
WISCONSIN PUBLIC SERVICE CORPORATION
ATTN: SCOTT ZELLNER
PHONE: (920) 617-5068
E-MAIL: scott.zellner@wisconsinpublicservice.com

COMMUNICATIONS
TDS TELECOM
ATTN: STEVE JAKUBIEC
10 COLLEGE AVENUE, SUITE 218A
APPLETON, WI 54911
PHONE: (920) 882-4166
E-MAIL: steve.jakubiec@tdstelecom.com

GAS/PETROLEUM
WEST SHORE PIPE LINE COMPANY
ATTN: CASEY SCHWANDT
2119 NORTH QUINCY STREET
GREEN BAY, WI 54302
PHONE: (920) 655-1428
E-MAIL: cschwandt@buckeye.com

DNR LIAISON

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
ATTN: MATT SCHAEVE
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
PHONE: (920) 662-5472
EMAIL: matthew.schaeve@wisconsin.gov

DESIGN CONTACTS

WISCONSIN DEPARTMENT OF TRANSPORTATION
NORTHEAST REGION
ATTN: TIMOTHY VERHAGEN
944 VANDERPERREN WAY
GREEN BAY, WI 54304
PHONE: (920) 362-1267
E-MAIL: timothy.verhagen@dot.wi.gov

MSA PROFESSIONAL SERVICES
ATTN: BRIAN HUIBREGTSE
2901 INTERNATIONAL LANE, SUITE 300
MADISON, WI 53704
PHONE: (608) 242-6650
E-MAIL: bhuibregtse@msa-ps.com

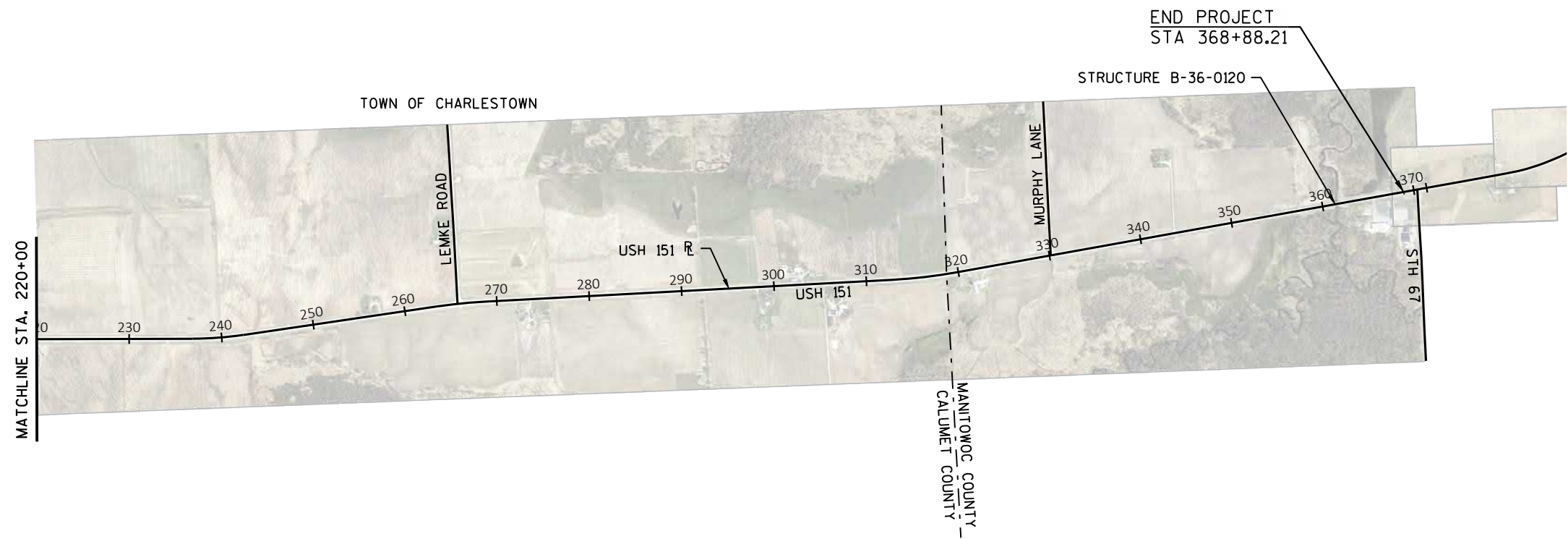
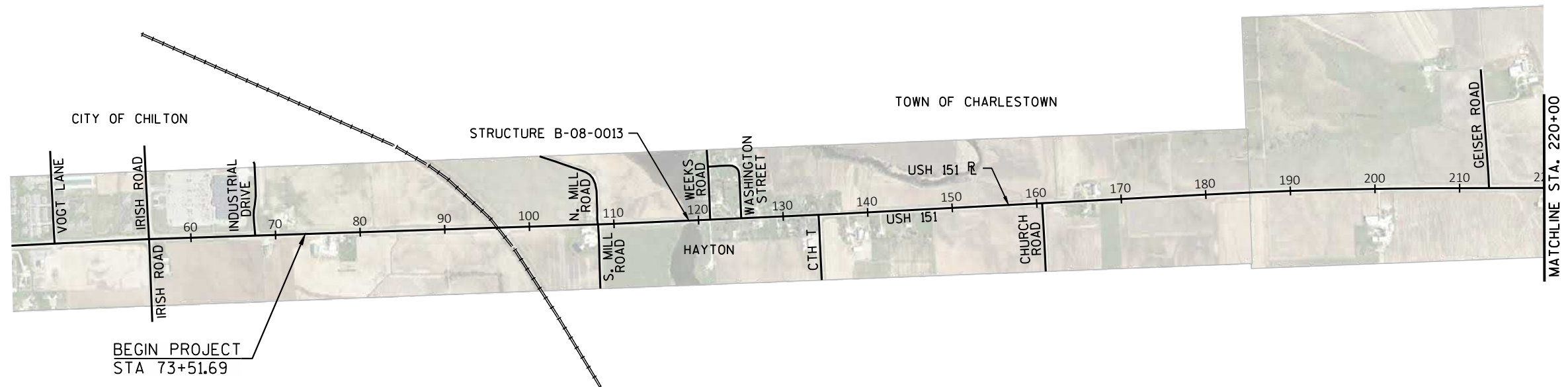
SURVEY MONUMENT CONTACT

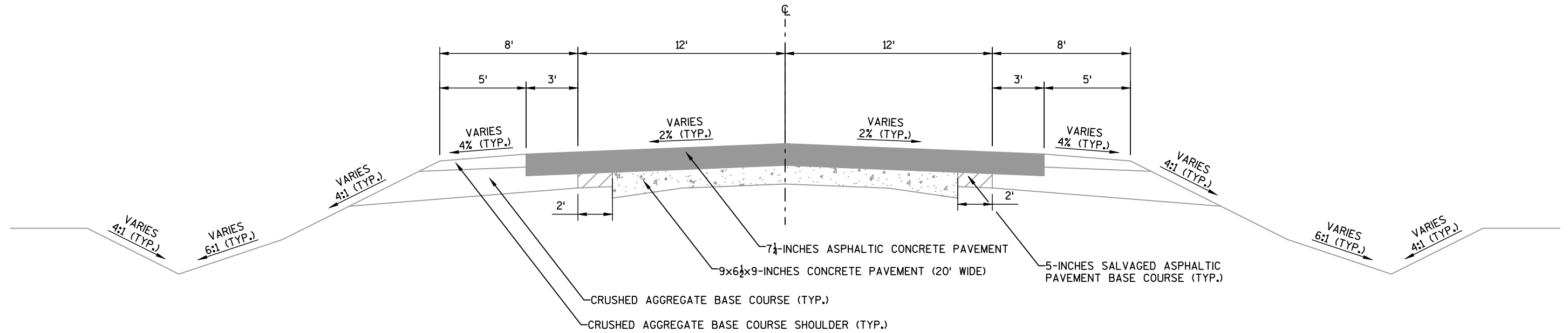
CORMAC MCINNIS, PLS
NORTHEAST REGION SURVEYS
944 VANDERPERREN WAY
GREEN BAY, WI 54304
PHONE: (920) 362-1267
E-MAIL: cormac.mcinnis@dot.wi.gov

STANDARD ABBREVIATIONS

- AC ACRES
- AEW APRON ENDWALL
- AGG AGGREGATE
- AH AHEAD
- ALUM. ALUMINUM
- A.P. ACCESS POINT
- ASPH ASPHALT
- AVE AVENUE
- BAD BASE AGGREGATE DENSE
- BK BACK
- BLK BLOCK
- BOC BACK OF CURB
- BOW BACK OF SIDEWALK
- BM BENCHMARK
- CABC CRUSHED AGGREGATE BASE COURSE
- CL or C CENTERLINE
- Δ CENTRAL ANGLE or DELTA
- CMCP CORRUGATED METAL CULVERT PIPE
- CONC CONCRETE
- CP CONTROL POINT
- CPCS CULVERT PIPE CORRUGATED STEEL
- CSM CERTIFIED SURVEY MAP
- CTH COUNTY TRUNK HIGHWAY
- D DEGREE OF CURVE
- DES DESIRABLE
- E EAST
- EB EASTBOUND
- EBB EXCAVATION BELOW SUBGRADE
- EOP EDGE OF PAVEMENT
- ET AL AND OTHERS
- EW ENDWALL
- EXIST EXISTING
- FT FOOT
- FT2 SQUARE FEET
- GN GRID NORTH
- GV GAS VALVE
- HERCP HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE
- HYD HYDRANT
- IN INCH
- INL INLET
- INV INVERT
- IP IRON PIPE
- L LENGTH
- L LENGTH OF CURVE
- LC LONG CHORD
- LCB LONG CHORD BEARING
- LF LINEAR FEET
- LT LEFT
- MH MANHOLE
- MI MILE
- MON MONUMENT
- N NORTH
- NB NORTHBOUND
- N.C. NORMAL CROWN
- NO NUMBER
- PB PULLBOX
- PC POINT OF CURVATURE
- PI POINT OF INTERSECTION
- PL PROPERTY LINE
- PLE PERMANENT LIMITED EASEMENT
- POB POINT OF BEGINNING
- PT POINT OF TANGENCY
- R RADIUS
- R RANGE
- RCP REINFORCED CONCRETE PIPE
- RD ROAD
- REQ'D REQUIRED
- RL or R/L REFERENCE LINE
- RP RADIUS POINT
- RT RIGHT
- R/W RIGHT-OF-WAY
- S SOUTH
- SAN SANITARY SEWER
- SB SOUTHBOUND
- S.E. SUPERELEVATION
- SEC SECTION
- SSPRC STORM SEWER PIPE REINFORCED CONCRETE
- SSPRCHE STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
- SQ SQUARE
- ST STREET
- STA STATION
- STD STANDARD
- STH STATE TRUNK HIGHWAY
- STM STORM SEWER
- STR STRUCTURE
- T TANGENT
- TAN TANGENT
- TEMP TEMPORARY
- TLE TEMPORARY LIMITED EASEMENT
- T or TN TOWN
- TYP. TYPICAL
- WM WATERMAIN
- WV WATER VALVE
- W WEST
- WB WESTBOUND
- X EAST GRID COORDINATE
- Y NORTH GRID COORDINATE

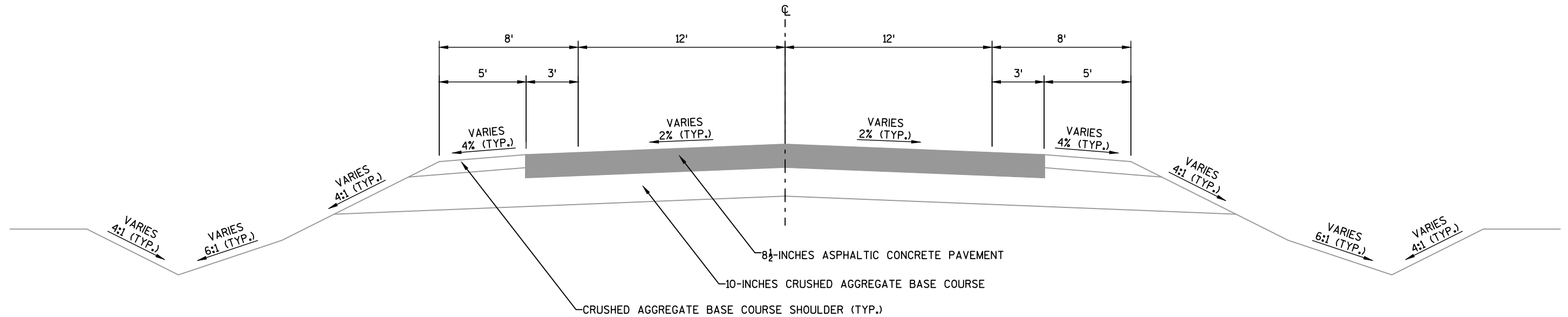
PROJECT NO: 4100-38-60	HWY: USH 151	COUNTY: CALUMET	GENERAL NOTES	SHEET	E
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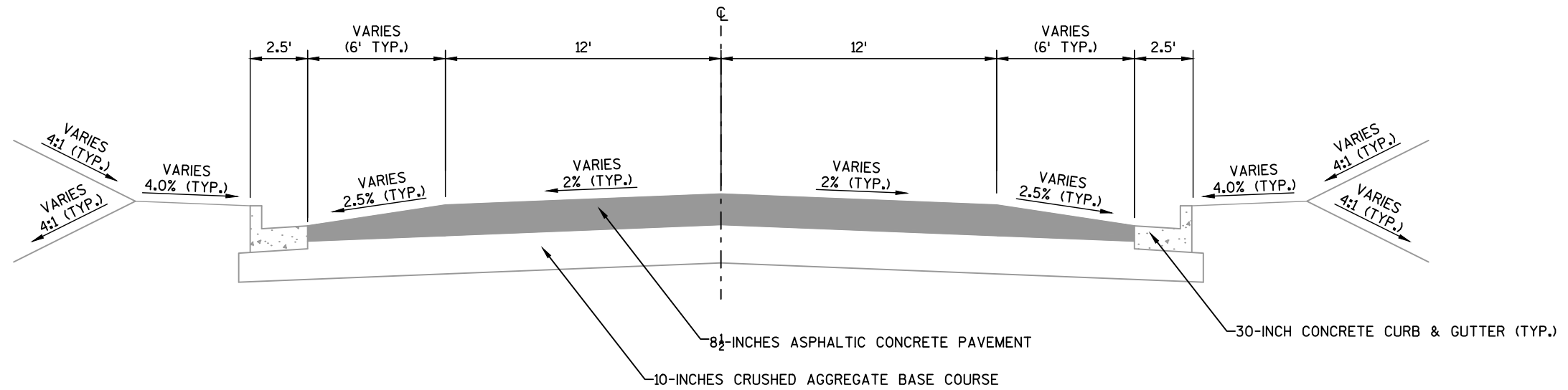
EXISTING TYPICAL SECTION — USH 151

STA. 73+52 - STA. 82+50
STA. 134+71 - STA. 137+18 RT
STA. 137+18 - STA. 361+12
STA. 361+64 - STA. 368+88



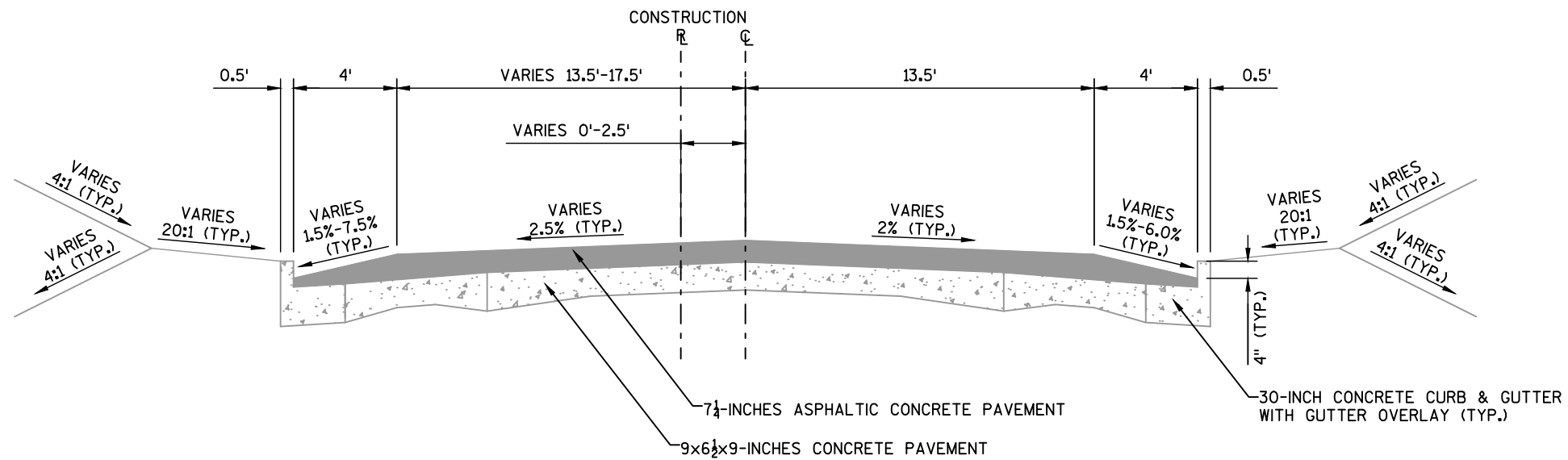
EXISTING TYPICAL SECTION — USH 151

STA. 82+50 - STA. 105+55
STA. 108+77 - STA. 118+52
STA. 119+25 - STA. 120+48



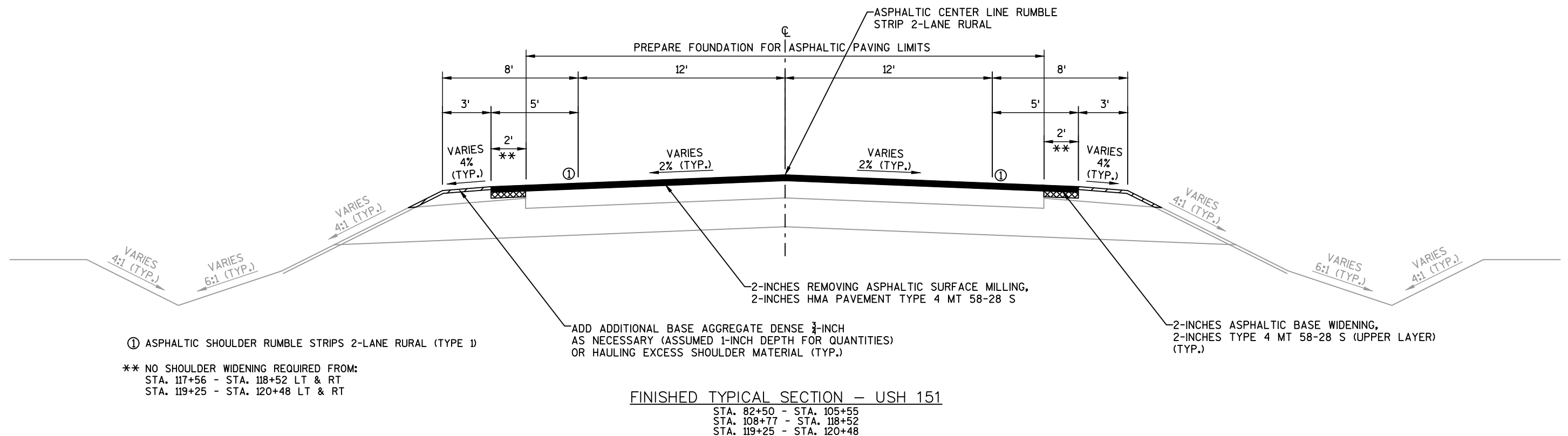
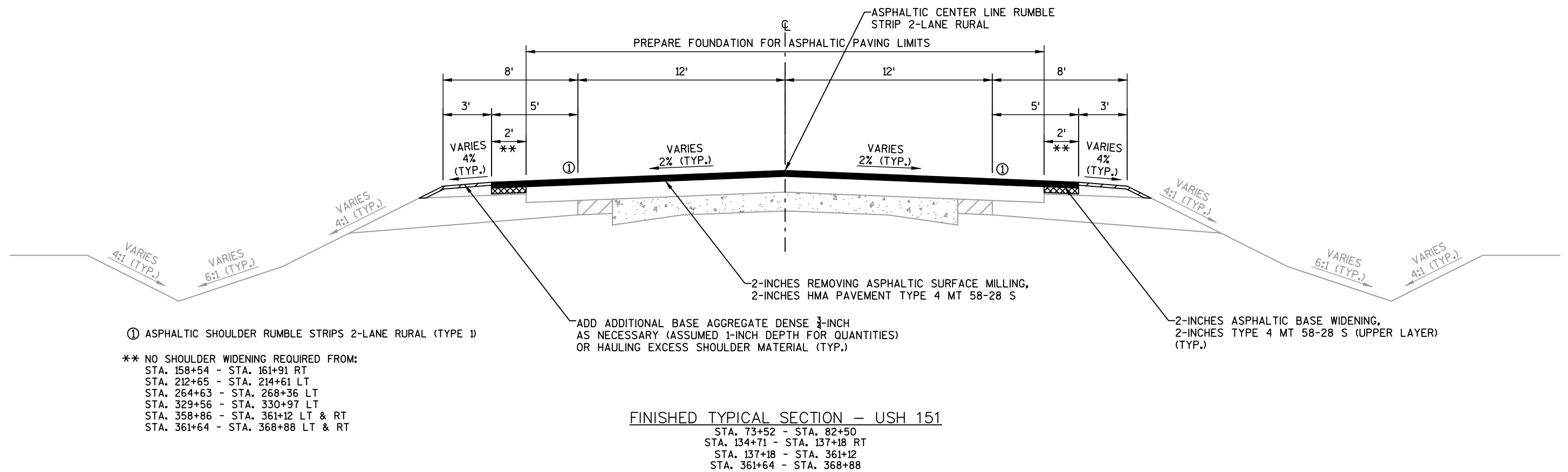
EXISTING TYPICAL SECTION — USH 151

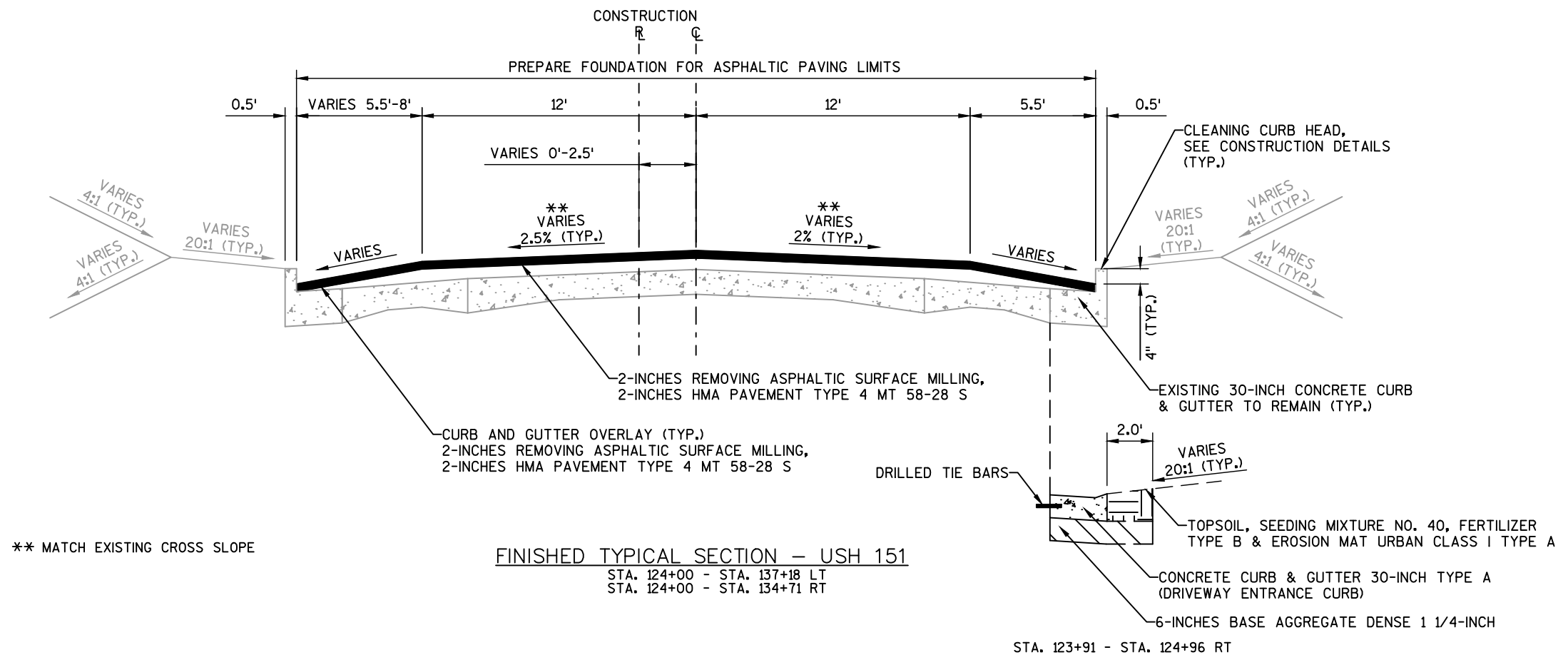
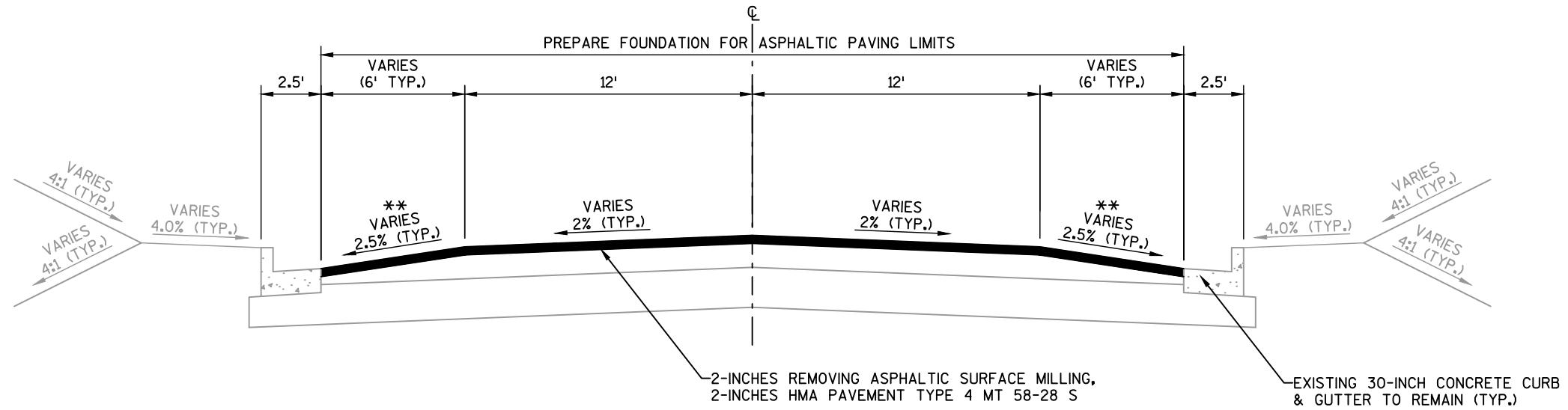
STA. 105+55 - STA. 108+77
STA. 120+48 - STA. 124+00

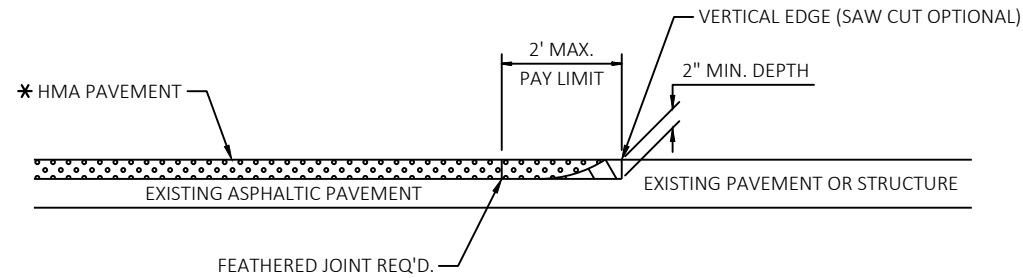


EXISTING TYPICAL SECTION — USH 151

STA. 124+00 - STA. 137+18 LT
STA. 124+00 - STA. 134+71 RT







* SEE TYPICAL CROSS SECTION FOR
PAVEMENT TYPE AND THICKNESS
OF INDIVIDUAL LAYERS



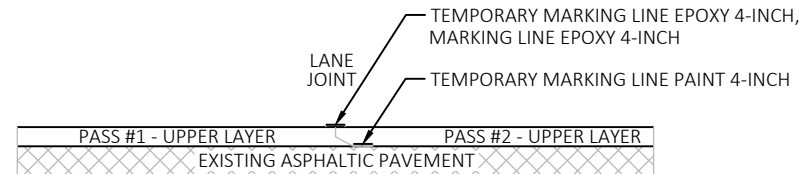
REMOVING ASPHALTIC SURFACE MILLING



REMOVE ASPHALTIC SURFACE WEDGE AT BUTT JOINT TO CREATE VERTICAL EDGE
(PAID FOR AS 'REMOVING ASPHALTIC SURFACE BUTT JOINTS')

BUTT JOINT DETAIL FOR MILLED ASPHALTIC PAVEMENTS

SCALE: NONE



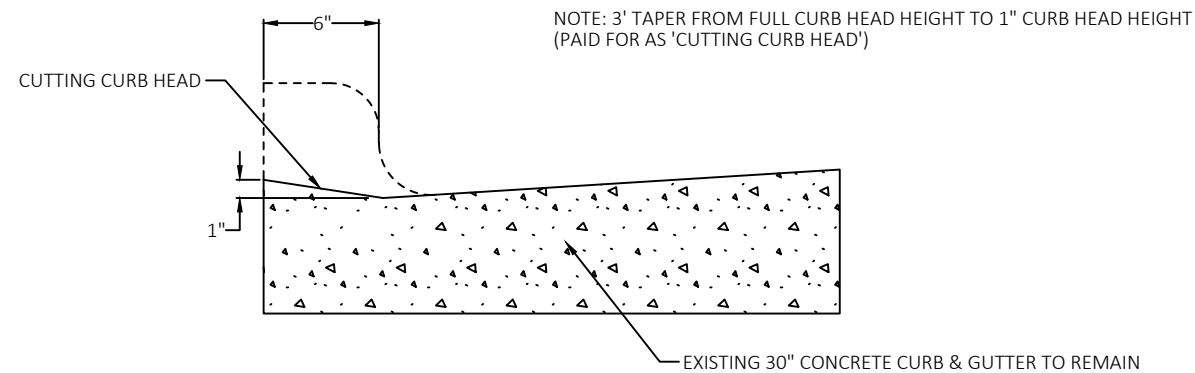
W8-11
48" X 48"

NOTES:

1. TO BE UTILIZED FOR TEMPORARY INSTALLATIONS
IN WORK AREAS INVOLVING PAVING LONGITUDINAL
JOINTS.
2. UNEVEN LANE SIGNS SHALL BE PLACED AT THE
BEGINNING OF JOINT AND AT 1/2 MILE INCREMENTS.
3. SIGNS WILL BE PAID FOR AS 'TRAFFIC CONTROL SIGNS'.
4. REFER TO S.D.D. "TRAFFIC CONTROL, DROP-OFF SIGNING"
FOR ADDITIONAL INFORMATION.

LONGITUDINAL JOINT DETAIL

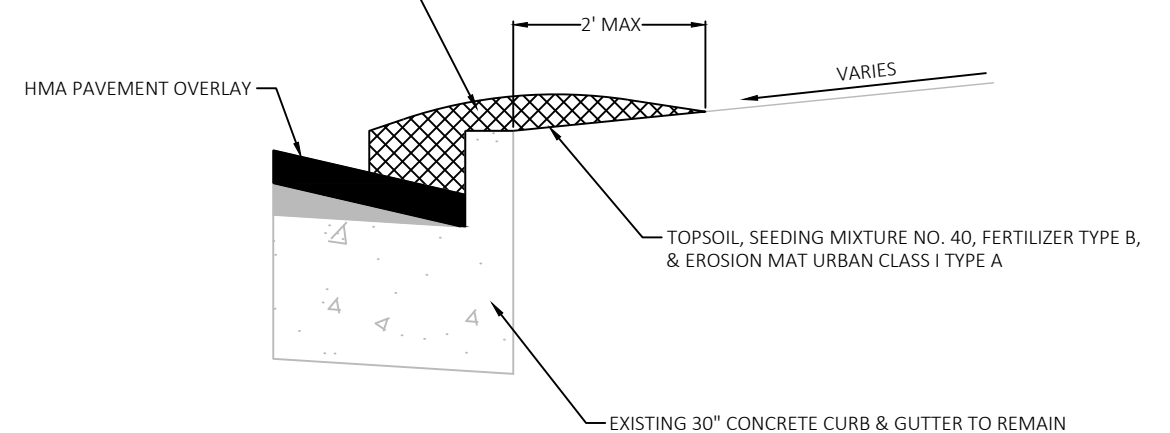
SCALE: NONE



CUTTING CURB HEAD DETAIL

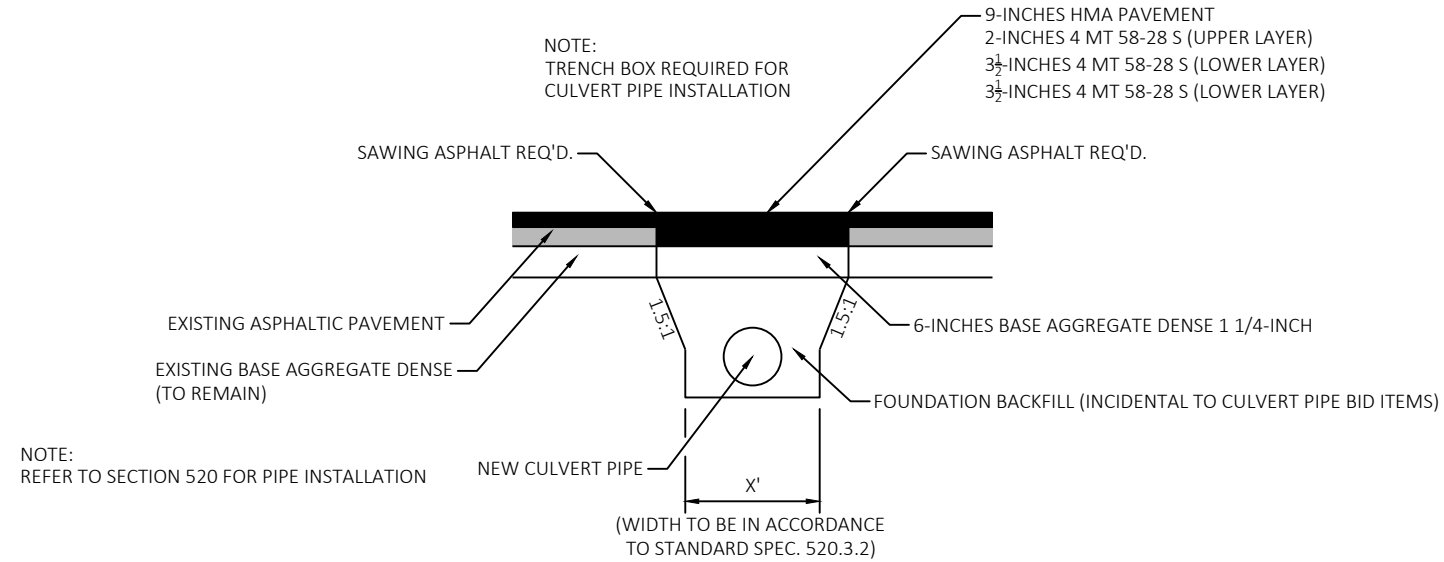
SCALE: NONE
STA. 120+68 - 120+83, LT.
STA. 120+68 - 120+83, RT.

REMOVE ANY DEBRIS AND OVERGROWTH MATERIAL UNTIL
CURB HEAD IS EXPOSED FULLY

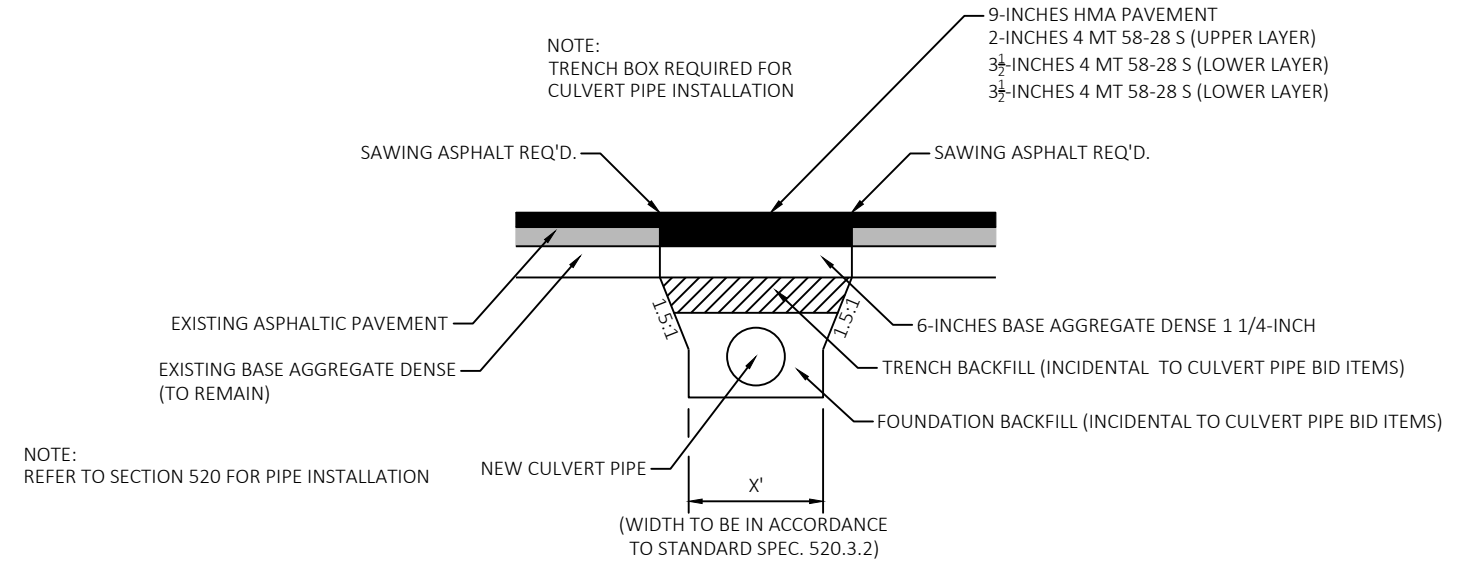


CLEANING CURB HEAD DETAIL

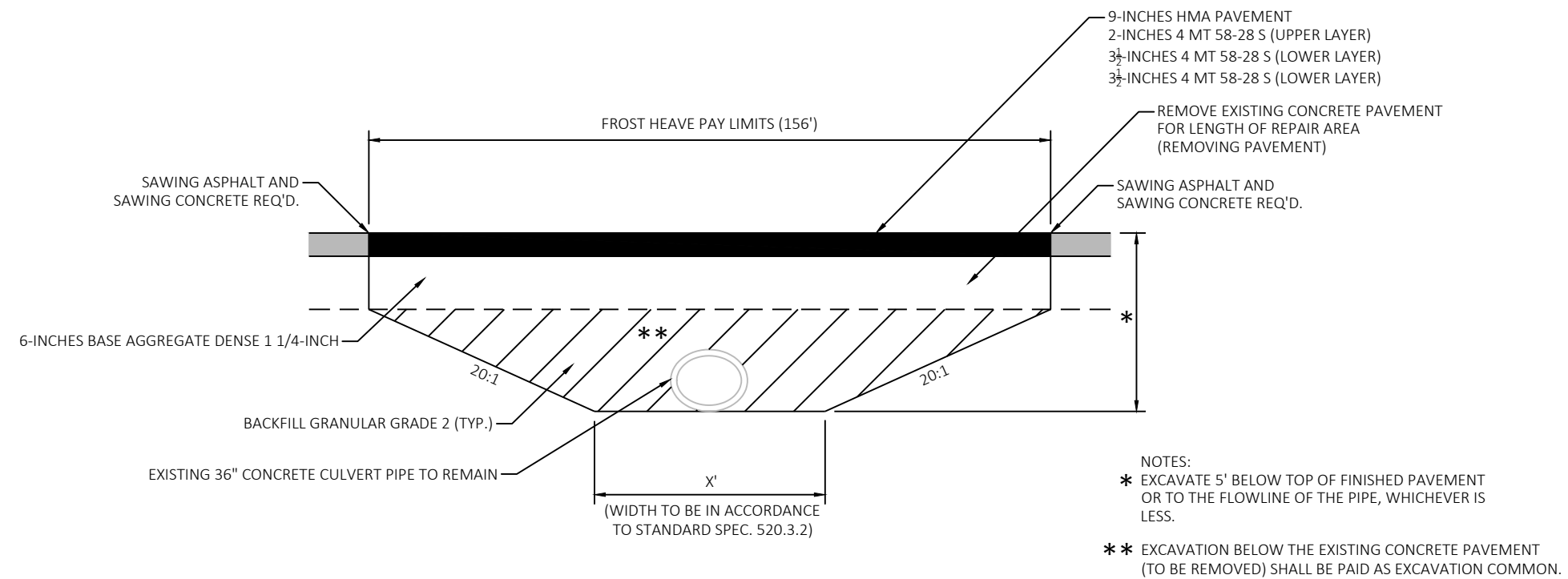
SCALE: NONE
STA. 123+91 - 124+92, LT.
STA. 124+96 - 132+75, RT.
STA. 125+29 - 137+19, LT.

PAVEMENT AT CULVERT REPLACEMENTS

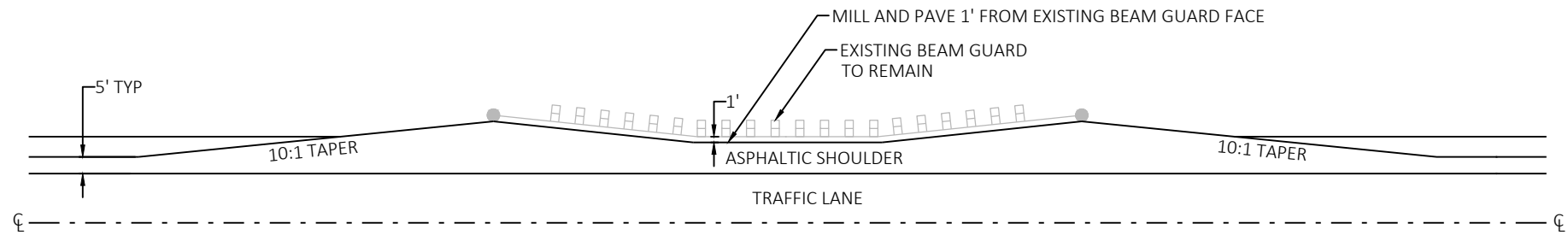
SCALE: NONE
STA. 96+08
STA. 96+53

PAVEMENT AT CULVERT REPLACEMENTS

SCALE: NONE
STA. 103+19

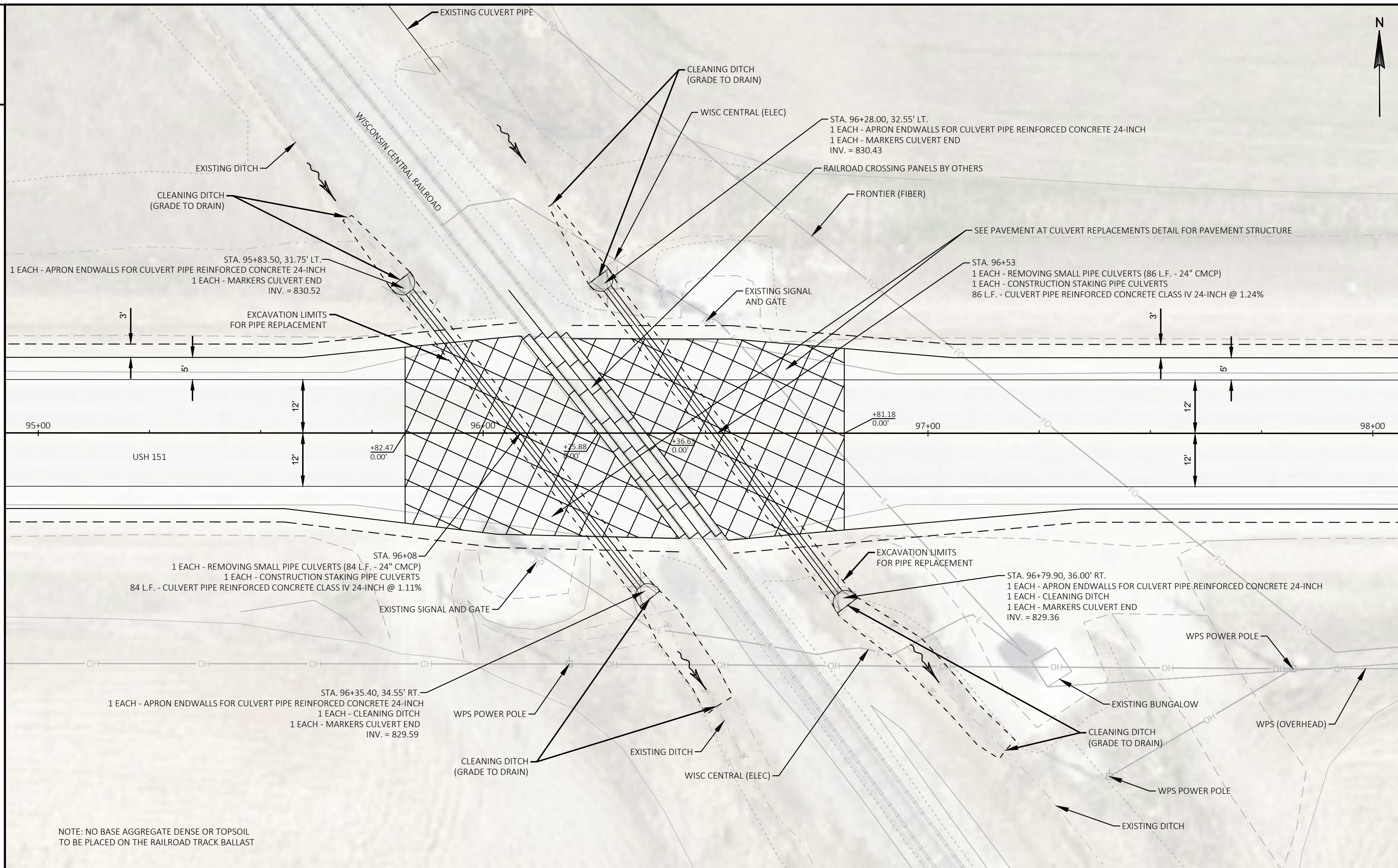
LONGITUDINAL DETAIL FOR CULVERT PIPE FROST HEAVE REPAIR AREA

SCALE: NONE
STA. 204+45 - STA. 206+01



DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD

SCALE: NONE



PROJECT NO: 4100-38-60

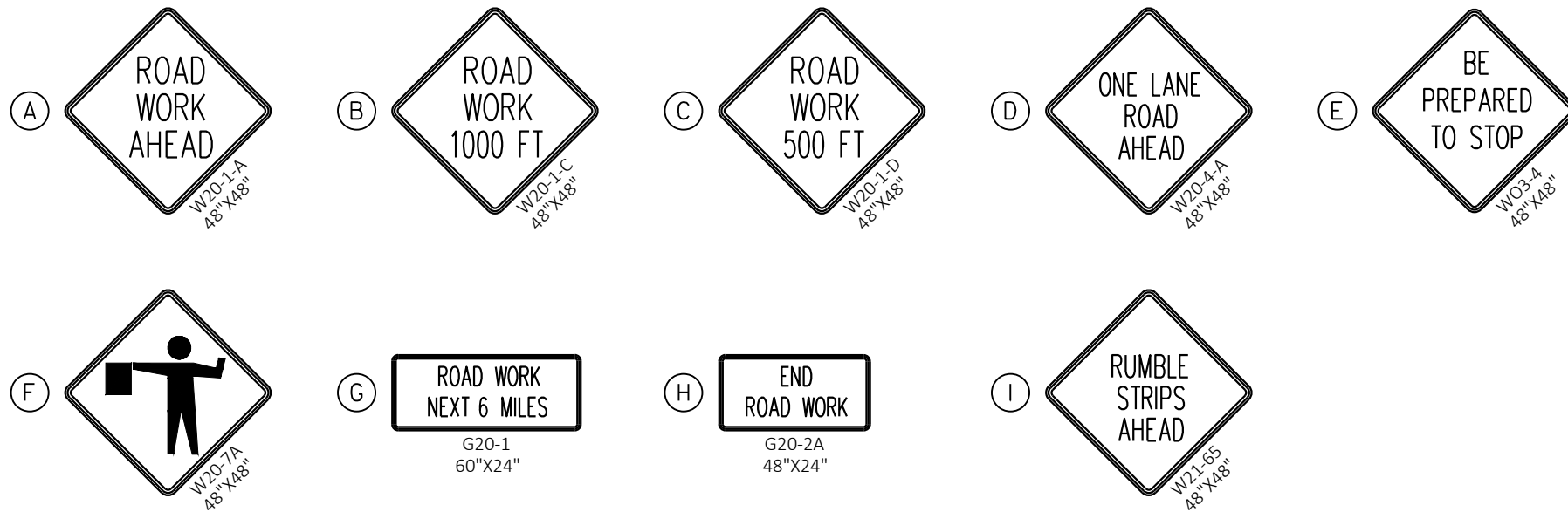
HWY: USH 151

COUNTY: CALUMET

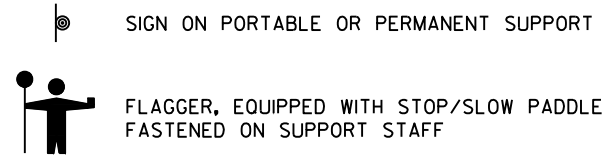
CONSTRUCTION DETAILS - RAILROAD CROSSING

SHEET

E



LEGEND



NOTES

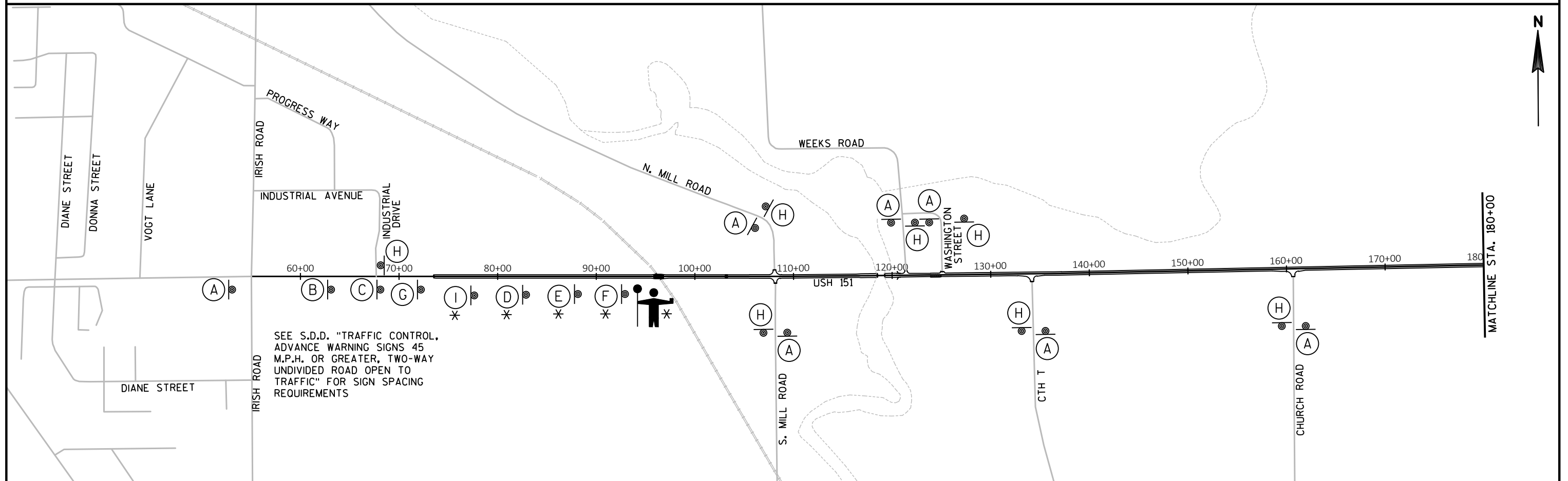
* TRAFFIC CONTROL FOR ALL MILLING, PAVING, AGGREGATE SHOULDER AND RUMBLE STRIP WORK SHALL FOLLOW S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION". (TRAFFIC CONTROL SHOWN AT THIS LOCATION FOR PLAN SHEET PURPOSES ONLY)

TRAFFIC CONTROL FOR ALL PAVEMENT MARKING WORK SHALL FOLLOW S.D.D. "MOVING PAVEMENT MARKING OPERATION-TWO-LANE TWO-WAY ROADWAY".

TRAFFIC CONTROL FOR ANY WORK REQUIRING A SHOULDER CLOSURE SHALL FOLLOW S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY".

FLAGGERS ARE REQUIRED WHEN WORK IS BEING COMPLETED AT INTERSECTIONS TO MAINTAIN VEHICULAR ACCESS TO USH 151.

DO NOT ALLOW TRAFFIC TO STOP BETWEEN THE RAILROAD GATES AT ANY TIME.
ADDITIONAL FLAGGERS MAY BE REQUIRED WHEN WORKING NEAR THE RAILROAD.



PROJECT NO: 4100-38-60

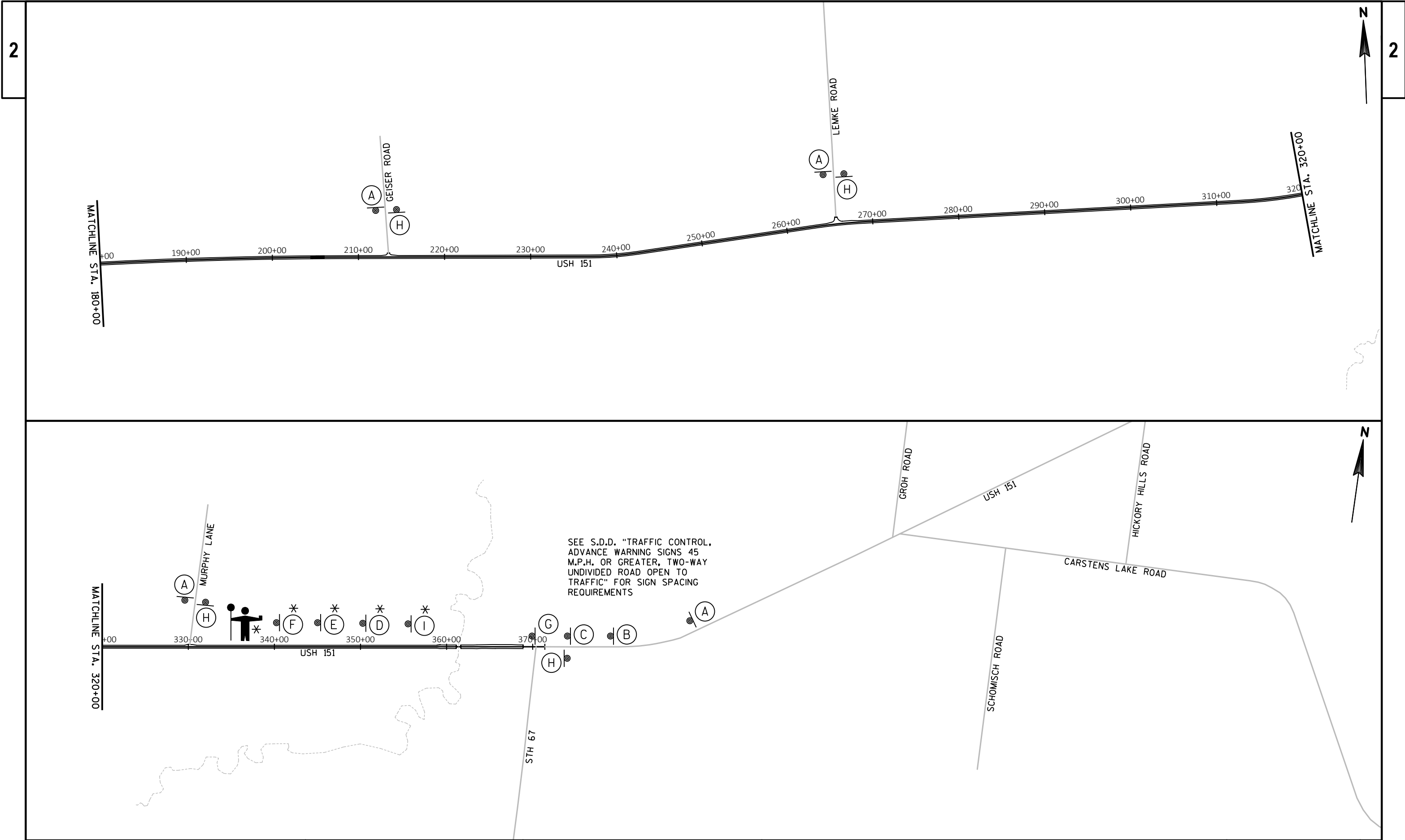
HWY: USH 151

COUNTY: CALUMET

TRAFFIC CONTROL OVERVIEW

SHEET

E



2

R11-2
48" X 30"

ROAD
CLOSED

TYPE III BARRICADE

R11-4
60" X 30"

ROAD CLOSED
TO
THRU TRAFFIC

TYPE III BARRICADE

R11-3
60" X 30"

ROAD CLOSED
1/2 MILES AHEAD
LOCAL TRAFFIC ONLY

TYPE III BARRICADE

D

ROAD
CLOSED
AHEAD
W20-3A
48" X 48"

E

ROAD
CLOSED
500 FT
W20-3D
48" X 48"

LEGEND

●

SIGN ON PORTABLE OR PERMANENT SUPPORT

⊥/⊥

TYPE III BARRICADE WITHOUT/WITH ATTACHED SIGN

NOTES

TRAFFIC CONTROL FOR THE ROAD CLOSURE SHALL FOLLOW S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES".

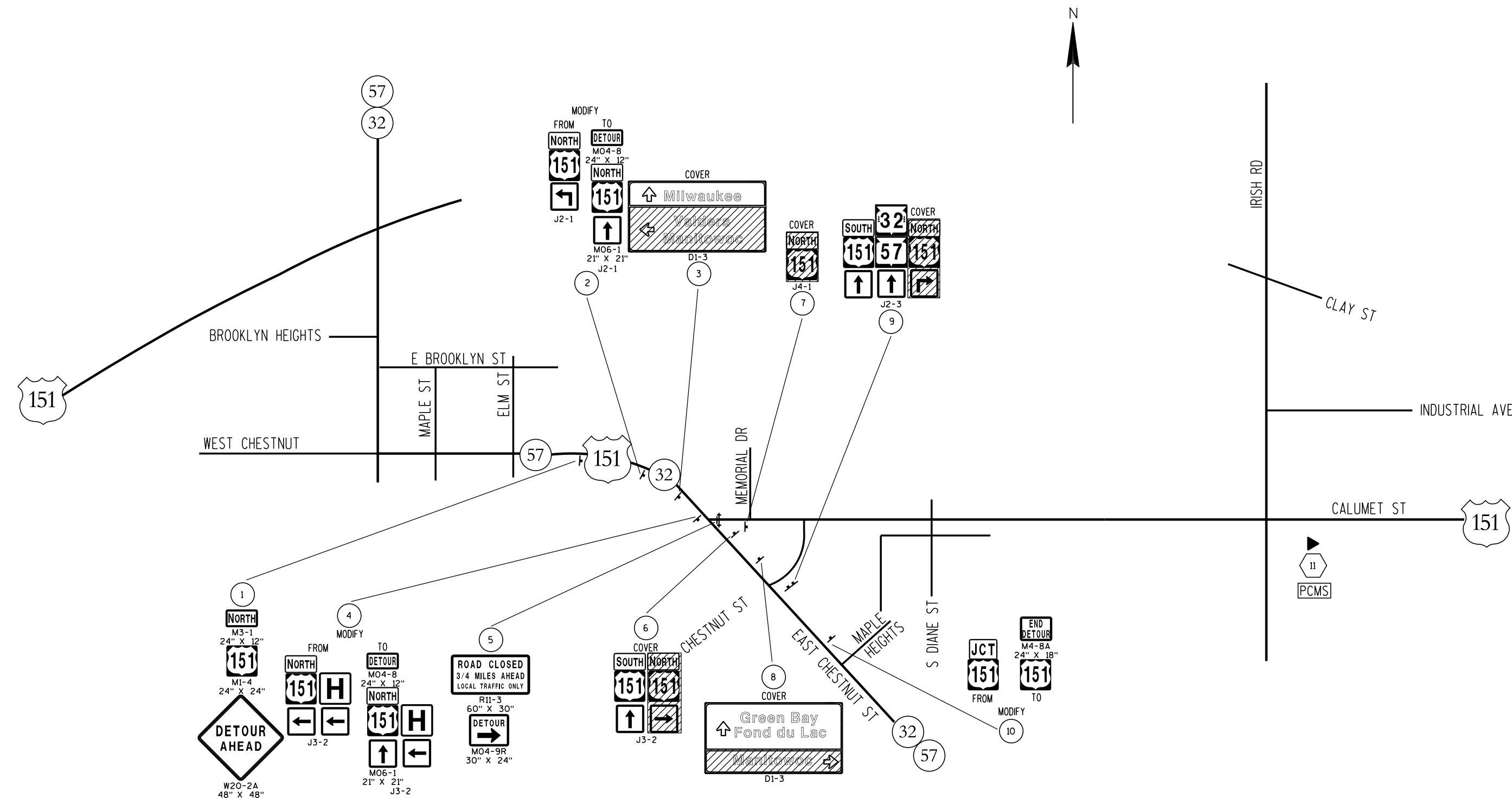
THIS DETAIL SHEET SHALL BE USED IN CONJUNCTION WITH THE DETOUR SIGNING DETAIL ONLY WHEN RAILROAD CROSSING AND CULVERT PIPE WORK ARE BEING COMPLETED.

2

The map illustrates the layout of USH 151 for a road closure project. Key features include:

- Geographic Context:** The map shows the intersection of USH 151 with several local roads: IRISH ROAD, INDUSTRIAL AVENUE, N. MILL ROAD, S. MILL ROAD, WEEKS ROAD, and WASHINGTON STREET. A railroad track runs parallel to USH 151 between station markers 80+00 and 100+00.
- Stationing and Closures:** USH 151 is marked with stationing from 60+00 to 120+00. Two specific road closure areas are identified:
 - Area 1 (Station 80+00):** "INSTALL ROAD CLOSURE BARRICADES BEYOND LAST RESIDENTIAL DRIVEWAY BEFORE RAILROAD TRACKS".
 - Area 2 (Station 100+00):** "INSTALL ROAD CLOSURE BARRICADES BEYOND LAST RESIDENTIAL DRIVEWAY BEFORE CULVERT REPLACEMENT".
- Signage and Barricade Locations:** Callouts A through E indicate the placement of various traffic control elements:
 - Callout A:** Locations for R11-2 and R11-3 signs at the start of the closure areas.
 - Callout B:** Locations for R11-4 signs at the start of the closure areas.
 - Callout C:** Location for a Type III barricade at the intersection of USH 151 and CTH T.
 - Callout D:** Location for a "ROAD CLOSED AHEAD" sign at the intersection of USH 151 and IRISH ROAD.
 - Callout E:** Locations for "ROAD CLOSED 500 FT" signs along USH 151.
- Orientation:** A north arrow is located in the bottom right corner of the map area.

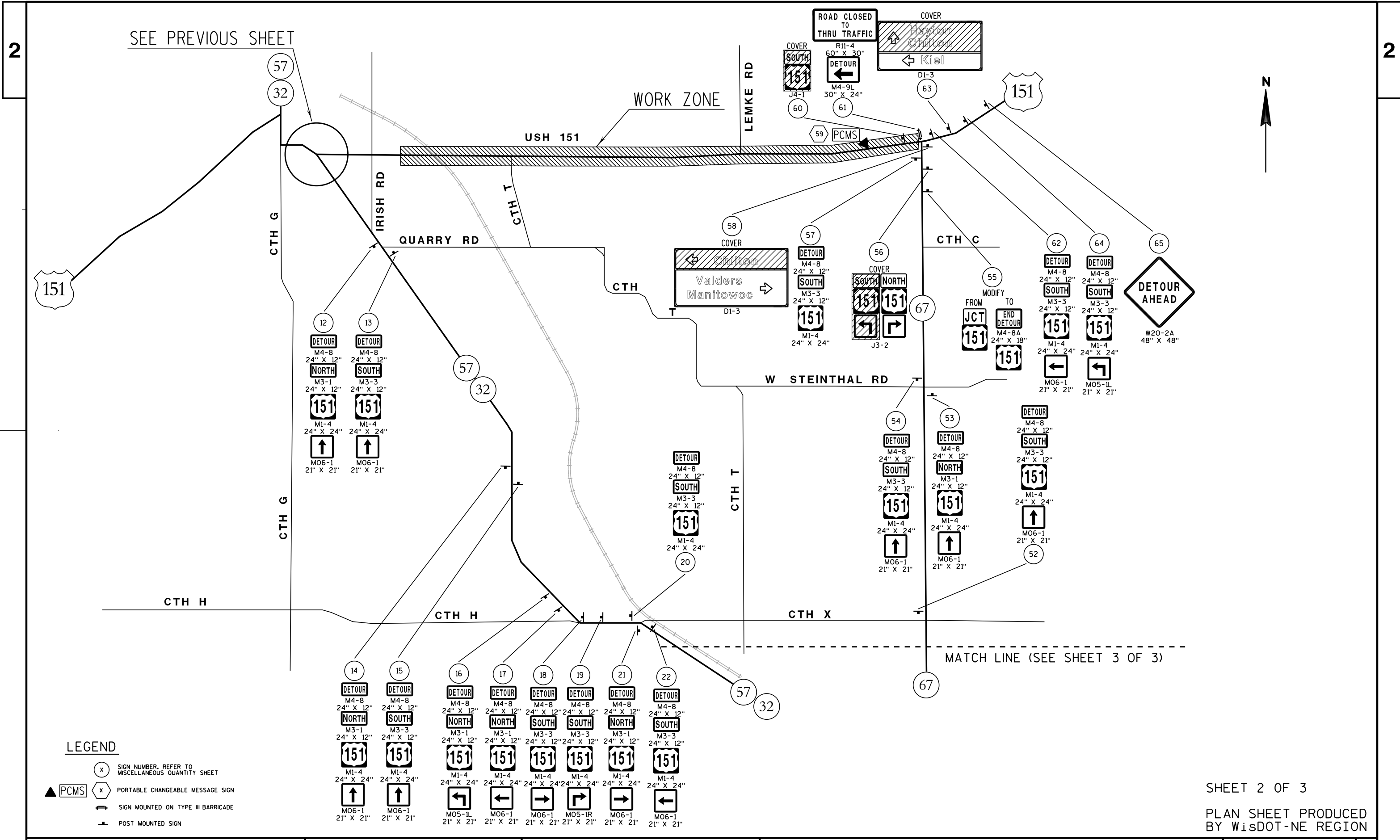
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FILE NAME : P:\905\93\00093424\CADD\41003830\SHEETSP\LAN\025001-TC.DWG LAYOUT NAME - 025003-tc		PLOT DATE : 1/3/2019 10:31 AM	PLOT BY : JASON DOLENS	PLOT NAME :	PLOT SCALE : 1 IN=500 FT
WISDOT/CADDs SHEET 42					



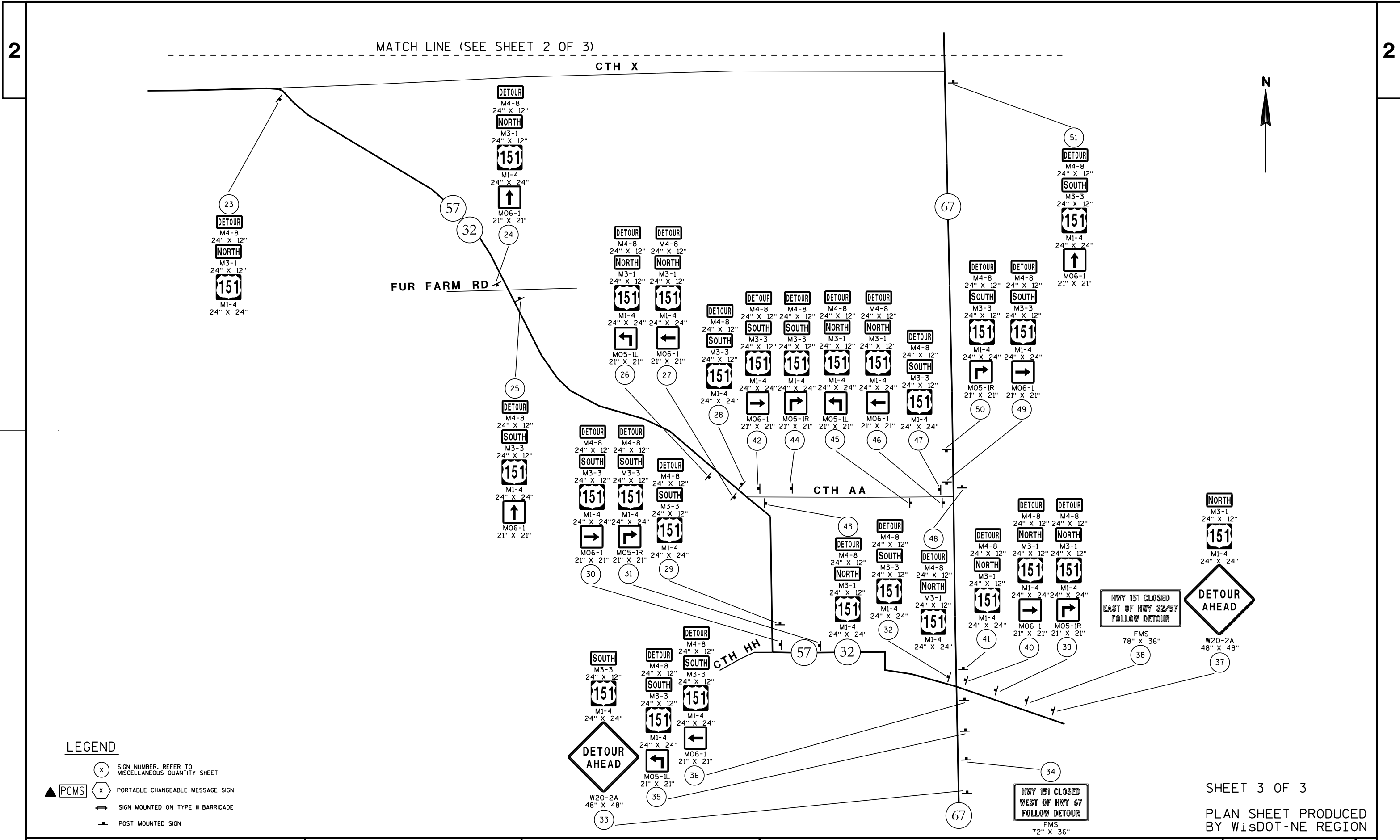
LEGEND

- (X) SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET
- ▲ PCMS (X) PORTABLE CHANGEABLE MESSAGE SIGN
- ⇄ SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN

SHEET 1 OF 3
PLAN SHEET PRODUCED
BY WISDOT-NE REGION



SHEET 2 OF 3
PLAN SHEET PRODUCED
BY WISDOT-NE REGION



LEGEND

- (X) SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET
- PCMS (X) PORTABLE CHANGEABLE MESSAGE SIGN
- ≡ SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN

SHEET 3 OF 3
PLAN SHEET PRODUCED
BY WISDOT-NE REGION

Estimate Of Quantities

4100-38-60					
Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	3.000	3.000
0004	204.0100	Removing Pavement	SY	350.000	350.000
0006	204.0115	Removing Asphaltic Surface Butt Joints	SY	105.000	105.000
0008	204.0120	Removing Asphaltic Surface Milling	SY	102,620.000	102,620.000
0010	204.0150	Removing Curb & Gutter	LF	10.000	10.000
0012	204.0190	Removing Surface Drains	EACH	2.000	2.000
0014	205.0100	Excavation Common	CY	992.000	992.000
0016	209.2100	Backfill Granular Grade 2	CY	470.000	470.000
0018	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 4100-38-60	LS	1.000	1.000
0020	213.0100	Finishing Roadway (project) 01. 4100-38-60	EACH	1.000	1.000
0022	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,000.000	1,000.000
0024	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	381.000	381.000
0026	305.0504.S	Hauling Excess Shoulder Material	CY	150.000	150.000
0028	315.0200	Asphaltic Base Widening	TON	1,372.000	1,372.000
0030	416.0610	Drilled Tie Bars	EACH	48.000	48.000
0032	455.0605	Tack Coat	GAL	7,859.000	7,859.000
0034	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0036	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	1.000	1.000
0038	460.2005	Incentive Density PWL HMA Pavement	DOL	12,896.000	12,896.000
0040	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	11,985.000	11,985.000
0042	460.2010	Incentive Air Voids HMA Pavement	DOL	14,268.000	14,268.000
0044	460.6224	HMA Pavement 4 MT 58-28 S	TON	14,268.000	14,268.000
0046	465.0315	Asphaltic Flumes	SY	34.000	34.000
0048	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	50,409.000	50,409.000
0050	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	25,018.000	25,018.000
0052	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	2.000	2.000
0054	520.3324	Culvert Pipe Class III-A 24-Inch	LF	80.000	80.000
0056	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	170.000	170.000
0058	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	4.000	4.000
0060	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	105.000	105.000
0062	618.0100	Maintenance And Repair of Haul Roads (project) 01. 4100-38-60	EACH	1.000	1.000
0064	619.1000	Mobilization	EACH	1.000	1.000
0066	624.0100	Water	MGAL	20.000	20.000
0068	625.0100	Topsoil	SY	2,000.000	2,000.000
0070	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0072	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0074	628.2006	Erosion Mat Urban Class I Type A	SY	2,000.000	2,000.000

Estimate Of Quantities

4100-38-60

Line	Item	Item Description	Unit	Total	Qty
0076	628.7005	Inlet Protection Type A	EACH	1.000	1.000
0078	628.7020	Inlet Protection Type D	EACH	8.000	8.000
0080	629.0210	Fertilizer Type B	CWT	1.250	1.250
0082	630.0140	Seeding Mixture No. 40	LB	35.000	35.000
0084	633.5200	Markers Culvert End	EACH	6.000	6.000
0086	642.5401	Field Office Type D	EACH	1.000	1.000
0088	643.0300	Traffic Control Drums	DAY	485.000	485.000
0090	643.0310.S	Temporary Portable Rumble Strips	LS	1.000	1.000
0092	643.0420	Traffic Control Barricades Type III	DAY	255.000	255.000
0094	643.0705	Traffic Control Warning Lights Type A	DAY	390.000	390.000
0096	643.0900	Traffic Control Signs	DAY	4,679.000	4,679.000
0098	643.0920	Traffic Control Covering Signs Type II	EACH	9.000	9.000
0100	643.1000	Traffic Control Signs Fixed Message	SF	37.500	37.500
0102	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000
0104	643.5000	Traffic Control	EACH	1.000	1.000
0106	646.1020	Marking Line Epoxy 4-Inch	LF	21,560.000	21,560.000
0108	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	55,635.000	55,635.000
0110	646.3040	Marking Line Grooved Wet Ref Epoxy 8-Inch	LF	250.000	250.000
0112	646.5320	Marking Railroad Crossings Epoxy	EACH	2.000	2.000
0114	648.0100	Locating No-Passing Zones	MI	5.570	5.570
0116	649.0105	Temporary Marking Line Paint 4-Inch	LF	16,720.000	16,720.000
0118	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	21,560.000	21,560.000
0120	650.4500	Construction Staking Subgrade	LF	276.000	276.000
0122	650.5000	Construction Staking Base	LF	276.000	276.000
0124	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	105.000	105.000
0126	650.6000	Construction Staking Pipe Culverts	EACH	3.000	3.000
0128	650.8000	Construction Staking Resurfacing Reference	LF	29,411.000	29,411.000
0130	650.9910	Construction Staking Supplemental Control (project) 01. 4100-38-60	LS	1.000	1.000
0132	690.0150	Sawing Asphalt	LF	294.000	294.000
0134	690.0250	Sawing Concrete	LF	50.000	50.000
0136	740.0440	Incentive IRI Ride	DOL	44,800.000	44,800.000
0138	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000
0140	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0142	SPV.0060	Special 01. Cleaning Ditch	EACH	2.000	2.000
0144	SPV.0090	Special 01. Cutting Curb Head	LF	30.000	30.000
0146	SPV.0090	Special 02. Cleaning Curb Head	LF	2,090.000	2,090.000

REMOVING SMALL PIPE CULVERTS							
CATEGORY	STATION	TO STATION	LOCATION	(203.0100) EACH	PIPE LENGTH	PIPE DIAMETER	PIPE MATERIAL
0010	95+84	96+35	LT & RT	1	84'	24"	CMCP
	96+28	96+80	LT & RT	1	86'	24"	CMCP
	103+19	103+19	LT & RT	1	80'	24"	CMCP
TOTAL				3			
NOTE: INCLUDES REMOVING APRON ENDWALLS CONNECTED TO CULVERT PIPE							

REMOVING ASPHALTIC SURFACE BUTT JOINTS				
CATEGORY	STATION	TO STATION	LOCATION	(204.0115) SY
0010	73+52	73+54	LT & RT	7
	107+94	108+20	LT	6
	108+04	108+30	RT	6
	118+50	118+52	LT & RT	8
	119+25	119+27	LT & RT	9
	121+28	121+54	LT	6
	124+91	125+28	LT	8
	134+02	134+34	RT	7
	160+52	160+83	RT	7
	213+36	213+62	LT	6
	265+65	265+94	LT	6
	361+10	361+12	LT & RT	9
	361+64	361+66	LT & RT	9
	368+86	368+88	LT & RT	10
TOTAL				105

REMOVING ASPHALTIC SURFACE MILLING				
CATEGORY	STATION	TO STATION	LOCATION	(204.0120) SY
0010	73+54	95+82	LT & RT	7,430
	96+81	103+08	LT & RT	2,092
	103+29	118+50	LT & RT	5,947
	119+27	204+45	LT & RT	30,669
	206+01	361+10	LT & RT	52,973
	361+66	368+86	LT & RT	3,509
	TOTAL			102,620

REMOVING CURB & GUTTER					
CATEGORY	STATION	TO STATION	LOCATION	LF	(204.0150) (690.0250) SAWING CONCRETE
0010	123+91	123+96	RT	5	2.5
	124+91	124+96	RT	5	2.5
TOTALS				10	5
*ADDITIONAL QUANTITIES FOUND ELSEWHERE					

REMOVING SURFACE DRAINS				
CATEGORY	STATION	LOCATION	EACH	(204.0190) (690.0250) SAWING CONCRETE
0010	120+61	LT	1	2.5
	120+61	RT	1	2.5
TOTALS			2	5
*ADDITIONAL QUANTITIES FOUND ELSEWHERE				

AGGREGATE SHOULDERS					
CATEGORY	STATION	TO STATION	LOCATION	(305.0110) BASE AGGREGATE DENSE 3/4-INCH TON	(305.0504.S) HAULING EXCESS SHOULDER MATERIAL CY
0010	73+52	105+55	LT	60	-
	73+52	105+55	RT	60	-
	108+65	118+52	RT	18	-
	108+77	118+52	LT	18	-
	119+25	120+56	LT	2	-
	119+25	120+56	RT	2	-
	134+71	160+00	RT	46	-
	137+19	160+00	LT	42	-
	160+00	213+36	LT	101	-
	161+23	213+50	RT	100	-
	213+50	266+00	RT	97	-
	213+62	265+25	LT	96	-
	266+00	330+00	RT	119	-
	266+49	329+85	LT	117	-
	330+00	359+27	RT	54	-
	330+50	359+27	LT	54	-
	363+52	368+88	LT	7	-
	363+52	368+88	RT	6	-
UNDISTRIBUTED				-	150
TOTALS				1,000	150
NOTE: ASPHALTIC BASE WIDENING BID ITEM INCLUDES MOVING THE EXISTING AGGREGATE OUTSIDE OF THE WIDENED ASPHALT SHOULDR TO ACCOMMODATE PAVING OPERATIONS					

HMA PAVEMENT						
CATEGORY	STATION	TO STATION	UPPER LAYER HMA PAVEMENT 4 MT 58-28 S			* (455.0605) TACK COAT GAL
			(460.6224) *	PWL DENSITY INCENTIVE	PWL AIR VOIDS	
			TON	TON #	TON # #	
0010	73+52	95+82	892	892	892	521
	96+81	103+08	251	251	251	146
	103+29	118+52	701	701	701	409
	119+25	204+45	3,680	3,680	3,680	2,147
	206+01	361+12	6,357	6,357	6,357	3,708
	361+64	368+88	423	423	423	247
TOTALS			12,305	12,305	12,305	7,178

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

Tonnage is eligible for Incentive Density PWL HMA Pavement (460.2005) and Incentive Air Voids HMA Pavement (460.2010).
Tonnage is eligible for Incentive Air Voids HMA Pavement (460.2010) and density is tested for acceptance in those areas.

ASPHALTIC SHOULDER WIDENING							
CATEGORY	STATION	TO STATION	LOCATION	(315.0200) ASPHALTIC BASE WIDENING TON	UPPER LAYER HMA PAVEMENT 4 MT 58-28 S		* (455.0605) TACK COAT GAL
					(460.6224) *	PWL AIR VOIDS	
					TON	TON # #	
0010	73+52	95+82	LT	60	60	60	25
	73+52	95+82	RT	60	60	60	25
	96+80	103+08	LT	17	17	17	7
	96+80	103+08	RT	18	18	18	8
	103+29	105+55	LT	6	6	6	3
	103+29	105+55	RT	6	6	6	3
	108+65	117+56	RT	26	26	26	11
	108+77	117+56	LT	27	27	27	11
	135+45	158+54	RT	62	62	62	26
	137+19	204+45	LT	179	179	179	75
	161+91	204+45	RT	113	113	113	47
	206+01	212+65	LT	18	18	18	8
	206+01	358+86	RT	408	408	408	170
	214+61	264+63	LT	133	133	133	56
	268+36	329+56	LT	163	163	163	68
	330+97	358+87	LT	74	74	74	31
TOTALS				1,372	1,372	1,372	572

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

Tonnage is eligible for Incentive Air Voids HMA Pavement (460.2010) and density is tested for acceptance in those areas.

CULVERT REPLACEMENT REPAIR AREA													
CATEGORY	STATION	TO STATION	LOCATION	CY	* (205.0100) EXCAVATION COMMON						* (455.0605) TACK COAT	* (305.0120) BASE AGGREGATE DENSE 1 1/4-INCH	* (690.0150) SAWING ASPHALT
					LOWER LAYERS			UPPER LAYER					
					HMA PAVEMENT 4 MT 58-28 S			HMA PAVEMENT 4 MT 58-28 S					
					(460.6224) *	PWL DENSITY INCENTIVE	PWL AIR VOIDS	(460.6224) *	PWL DENSITY INCENTIVE	PWL AIR VOIDS			
					TON	TON #	TON # #	TON	TON #	TON # #	GAL	TON	LF
0010	95+82	96+81	LT & RT	170	178	178	178	51	51	51	42	141	69
	103+08	103+29	LT & RT	-	33	33	33	10	10	10	8	26	60
TOTALS				170	211	211	211	61	61	61	50	167	129

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

Tonnage is eligible for Incentive Density PWL HMA Pavement (460.2005) and Incentive Air Voids HMA Pavement (460.2010).
Tonnage is eligible for Incentive Air Voids HMA Pavement (460.2010) and density is tested for acceptance in those areas.

FROST HEAVE REPAIR AREA															
CATEGORY	STATION	TO STATION	LOCATION	(204.0100) REMOVING PAVEMENT SY	*(205.0100) EXCAVATION COMMON CY	(209.2100) BACKFILL GRANULAR GRADE 2 CY	*(305.0120) BASE AGGREGATE DENSE 1 1/4-INCH TON	LOWER LAYERS HMA PAVEMENT 4 MT 58-28 S			UPPER LAYER HMA PAVEMENT 4 MT 58-28 S			*(455.0605) TACK COAT GAL	*(690.0150) SAWING ASPHALT LF
								(460.6224) *	PWL DENSITY INCENTIVE	PWL AIR VOIDS	(460.6224) *	PWL DENSITY INCENTIVE	PWL AIR VOIDS		
								TON	TON #	TON # #	TON	TON #	TON # #		
0010	204+45	206+01	LT & RT	350	800	470	196	248	248	248	71	71	71	59	60
TOTALS				350	800	470	196	248	248	248	71	71	71	59	60

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

Tonnage is eligible for Incentive Density PWL HMA Pavement (460.2005) and Incentive Air Voids HMA Pavement (460.2010).
Tonnage is eligible for Incentive Air Voids HMA Pavement (460.2010) and density is tested for acceptance in those areas.

INCENTIVE DENSITY HMA PAVEMENT LONGITUDINAL JOINTS						
CATEGORY	STATION	TO STATION	LOCATION	LF	(460.2007)	NOTES
					DOL	
0010	73+52	95+82	ON LINE	2,230	892	3 LAYERS AT CULVERT REPLACEMENT
	95+82	96+81	ON LINE	99	119	
	96+81	103+08	ON LINE	627	251	
	103+08	103+29	ON LINE	21	25	3 LAYERS AT CULVERT REPLACEMENT
	103+29	118+52	ON LINE	1,523	609	
	119+25	204+45	ON LINE	8,520	3,408	3 LAYERS AT FROST HEAVE REPAIR AREA
	204+45	206+01	ON LINE	156	187	
	206+01	361+12	ON LINE	15,511	6,204	
	361+64	368+88	ON LINE	724	290	
	TOTAL				11,985	

ASPHALTIC FLUMES			
CATEGORY	STATION	LOCATION	(465.0315)
			SY
0010	120+61	LT	17
	120+61	RT	17
TOTAL			34

ASPHALTIC RUMBLE STRIPS					
CATEGORY	STATION	TO STATION	LOCATION	(465.0425)	(465.0475)
				ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL LF	ASPHALTIC CENTER LINE RUMBLE STRIPS 2-LANE RURAL LF
0010	73+52	95+26	CL	-	2,174
	73+52	95+26	LT	2,174	-
	73+52	95+26	RT	1,947	-
	97+36	105+55	CL	-	819
	97+36	105+55	LT	819	-
	97+36	105+55	RT	819	-
	109+43	118+27	LT	883	-
	109+43	118+27	RT	883	-
	110+17	118+27	CL	-	810
	135+95	158+56	RT	2,020	-
	137+19	158+67	CL	-	2,148
	137+19	212+15	LT	7,340	-
	162+67	211+49	CL	-	4,882
	162+67	360+87	RT	18,898	-
	214+61	264+13	LT	4,875	-
	215+49	263+80	CL	-	4,831
	267+80	328+18	CL	-	6,038
	268+36	328+80	LT	5,957	-
	330+97	360+87	LT	2,901	-
	332+18	360+87	CL	-	2,869
	361+89	368+36	CL	-	447
	361+89	368+16	LT	627	-
	361+89	366+75	RT	266	-
	TOTALS			50,409	25,018

CUTTING CURB HEAD				
CATEGORY	STATION	TO STATION	LOCATION	(SPV.0090.01)
				LF
0010	120+68	120+83	LT	15
	120+68	120+83	RT	15
TOTAL				30

CLEANING CURB HEAD				
CATEGORY	STATION	TO STATION	LOCATION	(SPV.0090.02)
				LF
0010	123+91	124+92	LT	110
	124+96	132+75	RT	780
	125+29	137+19	LT	1,200
TOTAL				2,090

CONCRETE CURB & GUTTER									
				(601.0409)	(650.5500)	(205.0100)	(305.0120)	(416.0610)	(690.0150)
				CONCRETE CURB & GUTTER 30-INCH TYPE A	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	EXCAVATION COMMON	BASE AGGREGATE DENSE 1 1/4-INCH	DRILLED TIE BARS	SAWING ASPHALT
CATEGORY	STATION	TO STATION	LOCATION	LF	LF	CY	TON	EACH	LF
0010	123+91	124+96	RT	105	105	22	18	48	105
TOTALS				105	105	22	18	48	105

MAINTENANCE AND REPAIR OF HAUL ROADS		
CATEGORY	PROJECT	(618.0100)
		EACH
0010	4100-38-60	1
	TOTAL	1

CONSTRUCTION STAKING							
CATEGORY	STATION	TO STATION	LOCATION	(650.4500)	(650.5000)	(650.8000)	(650.9910.01)
				SUBGRADE	BASE	RESURFACING REFERENCE	SUPPLEMENTAL CONTROL (PROJECT)
LF	LF	LF	LS				
0010	95+82	96+81	LT	99	99	-	-
	103+08	103+29	RT	21	21	-	-
	204+45	206+01	LT	156	156	-	-
	PROJECT 4100-38-60			-	-	29,411	1
TOTALS				276	276	29,411	1

CULVERT PIPES											
											**
			(520.1024) APRON ENDWALLS FOR CULVERT PIPE 24-INCH	(520.3324) CULVERT PIPE CLASS III-A 24-INCH	MINIMUM WALL THICKNESS (INCHES)		(522.1024) APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	(522.0424) CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH	(633.5200) MARKERS CULVERT END	(650.6000) CONSTRUCTION STAKING PIPE CULVERTS	JOINT TIES FOR CONCRETE PIPE
CATEGORY	STATION	TO STATION	EACH	LF	STEEL	ALUM.	EACH	LF	EACH	EACH	EACH
0010	95+83.50	96+35.40	-	-	-	-	2	84	2	1	24
	96+28.00	96+79.90	-	-	-	-	2	86	2	1	24
	103+19.00	103+19.00	2	80	0.64	0.75	-	-	2	1	22
TOTALS			2	80	-	-	4	170	6	3	70

NOTE: JOINT TIES ARE REQUIRED FOR ALL CONCRETE PIPE JOINTS
**FOR INFORMATIONAL PURPOSES ONLY; NOT A PAY ITEM

FINISHING ITEMS							
CATEGORY	STATION	TO STATION	LOCATION	(625.0100)	(629.0210)	(630.0140)	(628.2006)
				TOPSOIL	FERTILIZER	SEEDING MIXTURE	EROSION MAT URBAN
				SY	TYPE B	NO. 40	CLASS I TYPE A
					CWT	LB	SY
0010	95+74	96+06	LT	98	0.06	2	98
	96+12	96+66	RT	127	0.08	2	127
	96+04	96+51	LT	96	0.06	2	96
	96+57	97+21	RT	185	0.12	3	185
	103+08	103+29	LT	56	0.04	1	56
	103+08	103+29	RT	73	0.05	1	73
	120+40	120+85	LT	60	0.04	1	60
	120+40	120+85	RT	60	0.04	1	60
	123+91	124+91	LT	18	0.01	0	18
	123+91	132+75	RT	189	0.12	3	189
	125+28	137+19	LT	239	0.15	4	239
	204+20	206+26	LT	343	0.22	6	343
	204+20	206+26	RT	343	0.22	6	343
UNDISTRIBUTED (ADDITIONAL DISTURBED AREAS)				111	0.06	3	111
TOTALS				2,000	1.25	35	2,000

CLEANING DITCH			
CATEGORY	STATION	LOCATION	(SPV.0060.01)
0010	96+35	RT	1
	96+80	RT	1
TOTAL			2

WATER		
CATEGORY	DESCRIPTION	(624.0100)
0010	PROJECT 4100-38-60	20
TOTAL		20

MOBILIZATIONS EROSION CONTROL			
CATEGORY	PROJECT	(628.1905)	(628.1910)
		EACH	EMERGENCY
			EACH
0010	4100-38-60	6	3
TOTALS		6	3

INLET PROTECTION				
CATEGORY	STATION	LOCATION	(628.7005)	(628.7020)
			TYPE A	TYPE D
			EACH	EACH
0010	107+86	LT	-	1
	108+33	LT	-	1
	118+38	LT	-	1
	118+38	RT	-	1
	121+61	LT	1	-
	121+83	LT	-	1
	127+82	LT	-	1
	127+82	RT	-	1
	134+16	LT	-	1
TOTALS			1	8

PAVEMENT MARKINGS									
CATEGORY	STATION	TO STATION	(646.1020) MARKING LINE EPOXY 4-INCH (YELLOW)	(649.0120) TEMPORARY MARKING LINE EPOXY 4-INCH (YELLOW)	(646.1040) MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)	(646.3040) MARKING LINE GROOVED WET REF EPOXY 8-INCH (WHITE)	(646.5320) MARKING RAILROAD CROSSING EPOXY	(648.0100) LOCATING NO-PASSING ZONES	(649.0105) TEMPORARY MARKING LINE PAINT 4-INCH
			LF	LF	LF	LF	EACH	MI	LF
0010	72+50	96+35	1,969	1,969	4,753	-	1	-	1,584
	96+27	108+00	1,730	1,730	2,244	-	1	-	1,730
	108+00	122+00	1,394	1,394	2,361	-	-	-	1,149
	122+00	136+50	1,532	1,532	201	-	-	-	1,287
	136+50	161+00	1,978	1,978	4,725	50	-	-	1,561
	161+00	213+50	3,820	3,820	10,443	-	-	-	2,927
	213+50	266+00	4,091	4,091	10,400	-	-	-	3,198
	266+00	369+75	5,048	5,048	20,508	200	-	-	3,283
	73+52	368+88	-	-	-	-	-	5.57	-
TOTALS			21,560	21,560	55,635	250	2	5.57	16,720

NOTE: TEMPORARY MARKING LINE EPOXY 4-INCH TO BE APPLIED BEFORE CENTERLINE RUMBLE STRIPS ARE INSTALLED

NOTE: MARKING LINE EPOXY 4-INCH TO BE APPLIED AFTER CENTERLINE RUMBLE STRIPS ARE INSTALLED

TRAFFIC CONTROL												
CATEGORY	DESCRIPTION	(643.5000) TRAFFIC CONTROL	DRUMS NO. DEVICES	(643.0300) TRAFFIC CONTROL	BARRICADES TYPE III NO. DEVICES	(643.0420) TRAFFIC CONTROL BARRICADES	WARNING LIGHTS TYPE A NO. DEVICES	(643.0705) TRAFFIC CONTROL WARNING LIGHTS	SIGNS	(643.0900) TRAFFIC CONTROL	DURATION	
		EACH		DRUMS DAY		TYPE III DAY		TYPE A DAY	NO. DEVICES	CONTROL DAY		
0010	ADVANCE WARNING SIGNS (MAINLINE & SIDEROAD)	-	-	-	-	-	-	-	28	1,484	53	DAYS
	LANE CLOSURE WITH FLAGGING OPERATION	-	-	-	-	-	-	-	8	160	20	DAYS
	MOVING PAVEMENT MARKING OPERATION	-	-	-	-	-	-	-	9	99	11	DAYS
	SHOULDER CLOSURE	-	25	250	-	-	-	-	1	10	10	DAYS
	UNEVEN LANES	-	-	-	-	-	-	-	11	121	11	DAYS
	ROAD CLOSURE (RAILROAD & CULVERT REPLACEMENTS)	-	-	-	15	225	22	330	9	135	15	DAYS
	FROST HEAVE REPAIR AREA	-	15	60	-	-	-	-	-	-	4	DAYS
	CONCRETE CURB & GUTTER AND CLEANING CURB HEAD	-	35	175	-	-	-	-	-	-	5	DAYS
	PROJECT 4100-38-60	1	-	-	-	-	-	-	-	-		
TOTALS		1	-	485		225		330	-	2,009		

NOTES:

ADVANCE WARNING SIGNS (MAINLINE & SIDEROAD) - SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

LANE CLOSURE WITH FLAGGING OPERATION - SEE S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION"

MOVING PAVEMENT MARKING OPERATION - SEE S.D.D. "MOVING PAVEMENT MARKING OPERATION - TWO-LANE TWO-WAY ROADWAY"

SHOULDER CLOSURE - SEE S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY"

RAILROAD AND CULVERT REPLACEMENTS - SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

FROST HEAVE REPAIR AREA TO BE COMPLETED WHEN DETOUR IS IN PLACE.

TRAFFIC CONTROL SIGNS PCMS			
CATEGORY	LOCATION	DESCRIPTION	(643.1050) DAY
0010	USH 151 EASTBOUND, WEST OF PROJECT LIMITS	ADVANCE PROJECT NOTIFICATION	7
	USH 151 WESTBOUND, EAST OF PROJECT LIMITS	ADVANCE PROJECT NOTIFICATION	7
TOTAL			14

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

TRAFFIC CONTROL DETOUR														
SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	PERIOD 15 DAYS	(643.0900)	(643.0420)	(643.0705)	(643.1000)	(643.1050)	NO. OF CYCLES	(643.0920)	REMARKS	
						APPROX SERVICE PERIOD	TRAFFIC CONTROL SIGNS	TRAFFIC CONTROL BARRICADES	TRAFFIC CONTROL WARNING LIGHTS	TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL COVERING SIGNS
1	STH 32/57, N. OF US 151 SPLIT, PLACE 1/4 MILE N. OF USH 151 INTERSECTION	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	W 20-2A	48"X48"	1	15	15	-	-	-	-	-	-		
2	STH 32/57, N. OF US 151 SPLIT, MODIFY EXISTING J2-1 SIGN AS SHOWN	MO 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	AHEAD	
3	STH 32/57, N. OF US 151 SPLIT, COVER EXISTING D1-3 SIGN AS SHOWN	-	-	-	-	-	-	-	-	-	1	1	COVER "VALDERS-MANITOWOC"	
4	STH 32/57, AT US 151 SPLIT, MODIFY EXISTING J3-2 SIGN AS SHOWN	MO 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	AHEAD	
5	US 151, AT STH 32/57, PLACE IN SPLITTER ISLAND FACING WEST	R 11-3	60"X30"	1	15	15	15	30	-	-	-	-	3/4 MILES AHEAD	
	"	MO 4-9R	30"X24"	1	15	15	-	-	-	-	-	-		
6	STH 32/57, S. OF US 151, COVER EXISTING J3-2 SIGN AS SHOWN	-	-	-	-	-	-	-	-	-	1	1	COVER "NORTH US 151 RT"	
7	US 151, E. OF STH 32/57, COVER EXISTING J4-1 SIGN AS SHOWN	-	-	-	-	-	-	-	-	-	1	1	COVER ENTIRE SIGN	
8	STH 32/57, S. OF US 151, COVER EXISTING D1-3 SIGN AS SHOWN	-	-	-	-	-	-	-	-	-	1	1	COVER "MANITOWOC"	
9	STH 32/57, S. OF US 151, COVER EXISTING J2-3 SIGN AS SHOWN	-	-	-	-	-	-	-	-	-	1	1	COVER "NORTH US 151 ADV RT"	
10	STH 32/57, S. OF US 151, MODIFY EXISTING J1-1 SIGN AS SHOWN	M 4-8A	24"X18"	1	15	15	-	-	-	-	-	-		
11	US 151, PLACE E. OF IRSH RD ON RIGHT SHOULDER, FIELD DETERMINED	PCMS	-	1	-	-	-	-	-	7	-	-	PLACE IN ADVANCED OF CLOSURE	
12	STH 32/57, N. OF QUARRY RD, PLACE 250' N. OF QUARRY RD INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-	151	
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	AHEAD	
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-		
13	STH 32/57, S. OF QUARRY RD, PLACE 250' N. OF QUARRY RD INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	AHEAD	
14	STH 32/57, N. OF TECUMSEH RD, PLACE 250' N. OF TECUMSEH RD INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	AHEAD	
15	STH 32/57, S. OF TECUMSEH RD, PLACE 250' S. OF TECUMSEH RD INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	AHEAD	
16	STH 32/57, N. OF CTH H, PLACE 750' N. OF CTH H INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	MO 5-1L	21"X21"	1	15	15	-	-	-	-	-	-		
17	STH 32/57, N. OF CTH H, PLACE 250' N. OF CTH H INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	LEFT	
18	STH 32/57, S. OF CTH H, PLACE 100' S. OF CTH H INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	RIGHT	
19	STH 32/57, S. OF CTH H, PLACE 500' S. OF CTH H INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	MO 5-1R	21"X21"	1	15	15	-	-	-	-	-	-		

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

(CONTINUED ON NEXT PAGE)

TRAFFIC CONTROL DETOUR (CONTINUED)														
SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	PERIOD 15 DAYS	(643.0900)	(643.0420)	(643.0705)	(643.1000)	(643.1050)	NO. OF CYCLES	(643.0920)	REMARKS	
						TRAFFIC CONTROL SIGNS	TRAFFIC CONTROL BARRICADES TYPE III DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	TRAFFIC CONTROL SIGNS PCMS DAY		TRAFFIC CONTROL COVERING SIGNS TYPE II EACH		
20	STH 32/57, N. OF CTH X, PLACE 200' N. OF CTH X INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
21	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-	151	
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-		
	STH 32/57, N. OF CTH X, PLACE 100' N. OF CTH X INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-		
22	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	AHEAD	
	STH 32/57, S. OF CTH X, PLACE 200' S. OF CTH X INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-		
23	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	RIGHT	
	STH 32/57, S. OF CTH X, PLACE 200' S. OF CTH X INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-		
24	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	STH 32/57, N. OF FUR FARM RD, PLACE 150' N. OF FUR FARM RD INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
25	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	AHEAD	
	STH 32/57, S. OF FUR FARM RD, PLACE 150' S. OF FUR FARM RD INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
26	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	AHEAD	
	STH 32/57, N. OF CTH AA, PLACE 750' N. OF CTH AA INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
27	"	MO 5-1L	21"X21"	1	15	15	-	-	-	-	-	-		
	STH 32/57, N. OF CTH AA, PLACE 200' N. OF CTH AA INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
28	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	LEFT	
	STH 32/57, N. OF CTH AA, PLACE 250' N. OF CTH AA INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
29	STH 32/57, N. OF CTH HH, PLACE 200' N. OF CTH HH INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
30	STH 32/57, S. OF CTH HH, PLACE 150' S. OF CTH HH INTERSECTION	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	RIGHT	
31	STH 32/57, S. OF CTH HH, PLACE 750' S. OF CTH HH INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	MO 5-1R	21"X21"	1	15	15	-	-	-	-	-	-		
32	STH 32/57, N. OF STH 67, PLACE 250' N. OF STH 67 INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
*ADDITIONAL QUANTITIES FOUND ELSEWHERE						(CONTINUED ON NEXT PAGE)								

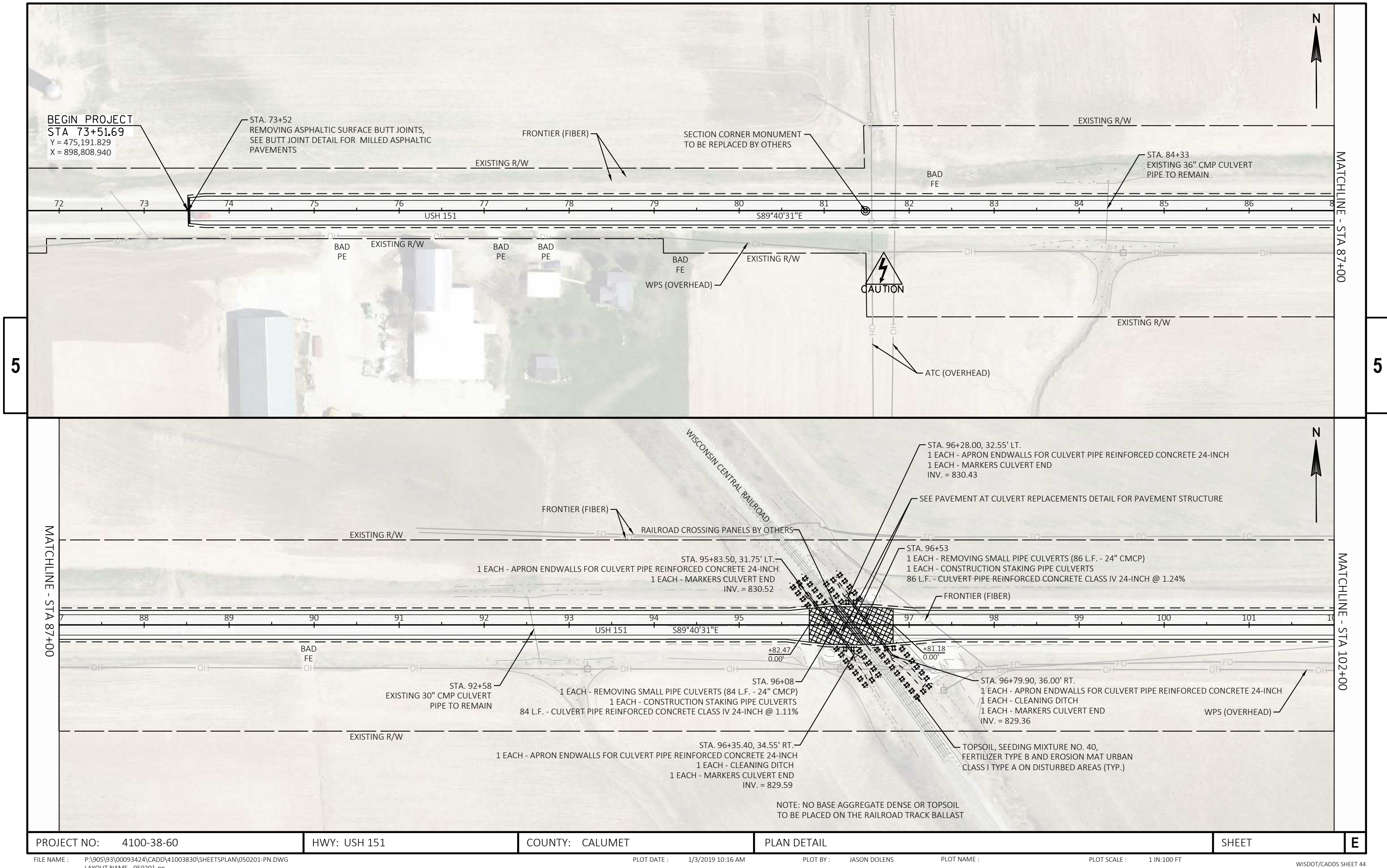
TRAFFIC CONTROL DETOUR (CONTINUED)														
SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX SERVICE PERIOD 15 DAYS	(643.0900)	(643.0420)	(643.0705)	(643.1000)	(643.1050)	NO. OF CYCLES	(643.0920)	REMARKS	
						TRAFFIC CONTROL SIGNS	TRAFFIC CONTROL BARRICADES TYPE III DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	TRAFFIC CONTROL SIGNS PCMS DAY		TRAFFIC CONTROL COVERING SIGNS TYPE II EACH		
33	STH 67, S. OF STH 32/57, PLACE 1/4 MILE S. OF STH 32/57 INTERSECTION	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-	151	
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-		
	"	W 20-2A	48"X48"	1	15	15	-	-	-	-	-	-		
34	STH 67, S. OF STH 32/57, PLACE 850' S. OF STH 32/57 INTERSECTION	FMS	72"X36"	1	15	-	-	-	18	-	-	-	SEE SIGN DETAIL	
35	STH 67, S. OF STH 32/57, PLACE 450' S. OF STH 32/57 INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-	151	
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-		
	"	MO 5-1L	21"X21"	1	15	15	-	-	-	-	-	-		
36	STH 67, S. OF STH 32/57, PLACE 150' S. OF STH 32/57 INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-	151	
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-		
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	LEFT	
37	STH 32/57, E. OF STH 67, PLACE 1/4 MILE E. OF STH 67 INTERSECTION	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	W 20-2A	48"X48"	1	15	15	-	-	-	-	-	-		
38	STH 32/57, E. OF STH 67, PLACE 850' E. OF STH 67 INTERSECTION	FMS	78"X36"	1	15	-	-	-	19.5	-	-	-	SEE SIGN DETAIL	
39	STH 32/57, E. OF STH 67, PLACE 450' E. OF STH 67 INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-	151	
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-		
	"	MO 5-1R	21"X21"	1	15	15	-	-	-	-	-	-		
40	STH 32/57, E. OF STH 67, PLACE 150' E. OF STH 67 INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-	151	
	"	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-		
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	RIGHT	
41	STH 67, N. OF STH 32/57, PLACE 200' N. OF STH 32/57 INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-	151	
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-		
	"	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
42	CTH AA, E. OF STH 32/57, PLACE RIGHT OF EXISTING J13-2 SIGN	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-	151	
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-		
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-		
43	CTH AA, E. OF STH 32/57, PLACE 150' E. OF STH 32/57 INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-	RIGHT	
	"	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-		
44	CTH AA, E. OF STH 32/57, PLACE 750' E. OF STH 32/57 INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-	151	
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-		
	"	MO 5-1R	21"X21"	1	15	15	-	-	-	-	-	-	151	
45	CTH AA, W. OF STH 67, PLACE 750' W. OF STH 67 INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	MO 5-1L	21"X21"	1	15	15	-	-	-	-	-	-		
46	CTH AA, W. OF STH 67, PLACE 250' W. OF STH 67 INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-	151	
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-		
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-		
47	CTH AA, W. OF STH 67, PLACE 150' W. OF STH 67 INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-	LEFT	
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-		

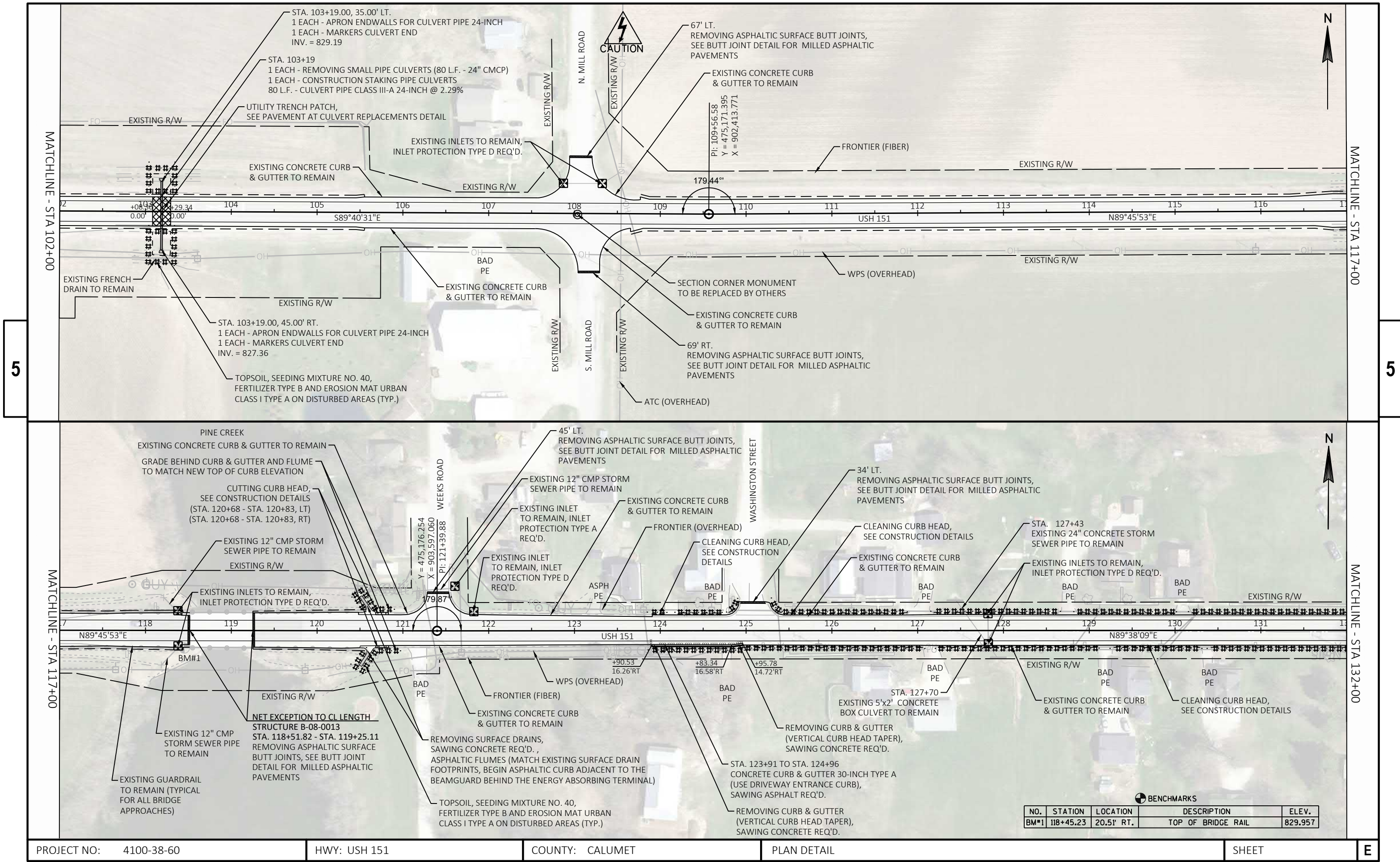
*ADDITIONAL QUANTITIES FOUND ELSEWHERE

(CONTINUED ON NEXT PAGE)

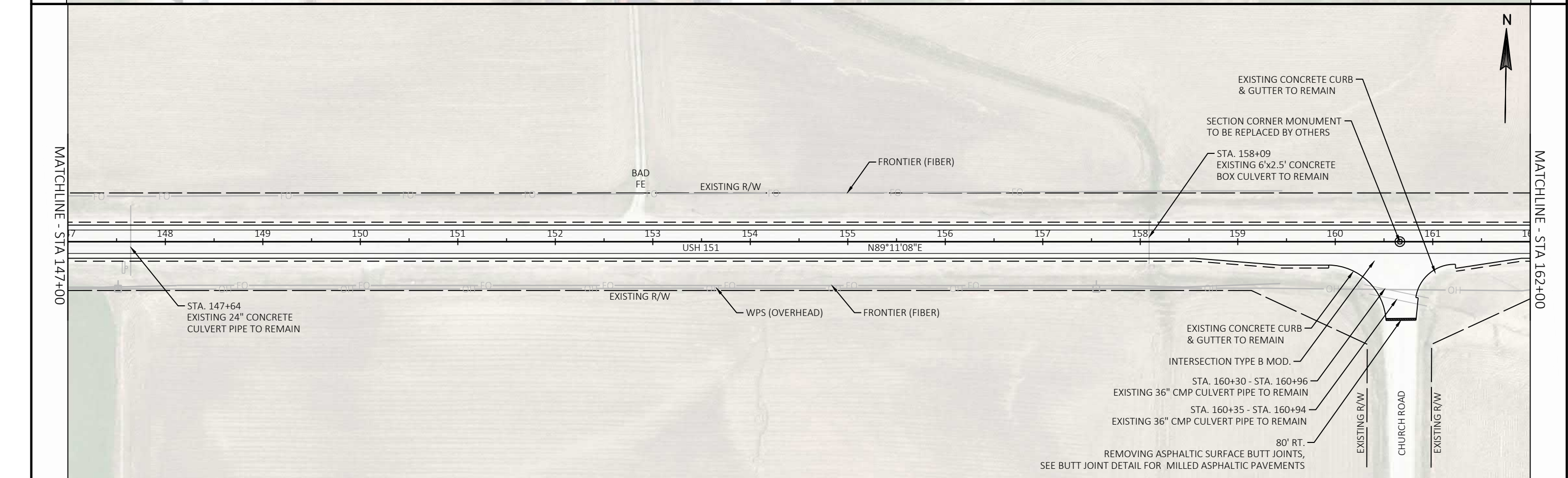
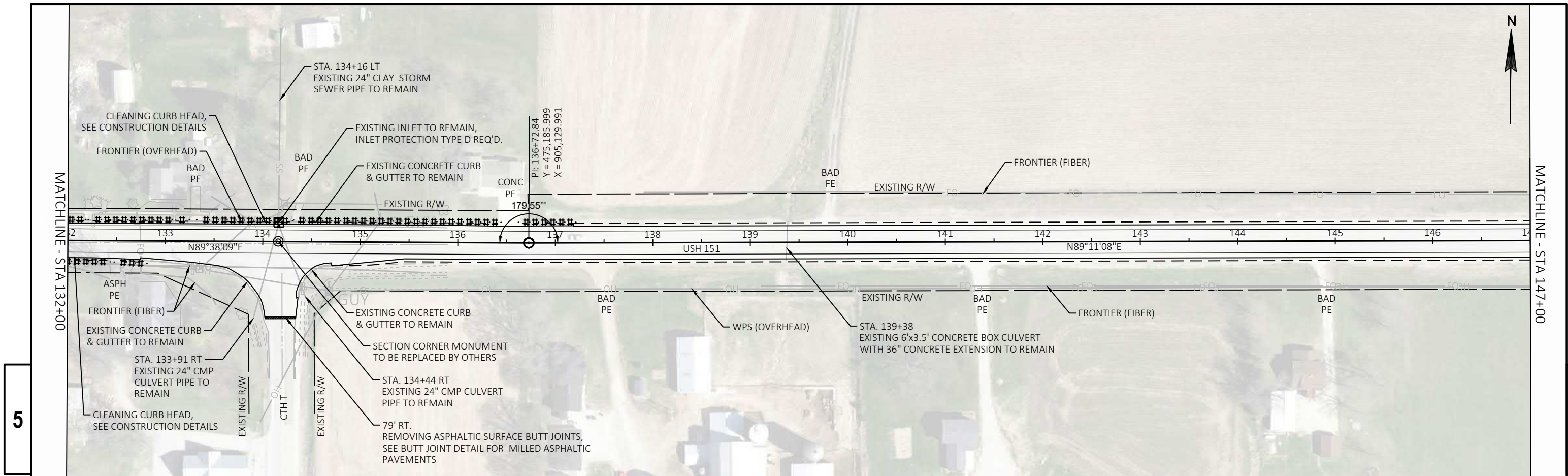
TRAFFIC CONTROL DETOUR (CONTINUED)														
SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	PERIOD 15 DAYS	(643.0900)	(643.0420)	(643.0705)	(643.1000)	(643.1050)	NO. OF CYCLES	(643.0920)	REMARKS	
						TRAFFIC CONTROL SIGNS	TRAFFIC CONTROL BARRICADES TYPE III DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	TRAFFIC CONTROL SIGNS PCMS DAY		TRAFFIC CONTROL COVERING SIGNS TYPE II EACH		
48	STH 67, N. OF CTH AA, PLACE 150' N. OF CTH AA INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
49	STH 67, N. OF CTH AA, PLACE 150' N. OF CTH AA INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	RIGHT	
50	STH 67, N. OF CTH AA, PLACE 750' N. OF CTH AA INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	MO 5-1R	21"X21"	1	15	15	-	-	-	-	-	-		
51	STH 67, S. OF CTH X, PLACE 150' S. OF CTH X INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	AHEAD	
52	STH 67, N. OF CTH X, PLACE 150' N. OF CTH X INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	AHEAD	
53	STH 67, S. OF STEINTHAL RD, PLACE 150' S. OF STEINTHAL RD INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-1	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	AHEAD	
54	STH 67, N. OF STEINTHAL RD, PLACE 150' N. OF STEINTHAL RD INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	AHEAD	
55	STH 67, S. OF US 151, MODIFY EXISTING J1-1 SIGN AS SHOWN	M 4-8A	24"X18"	1	15	15	-	-	-	-	-	-		
56	STH 67, S. OF US 151, COVER EXISTING J3-2 SIGN AS SHOWN	-	-	-	-	-	-	-	-	-	1	1	COVER "S-151-ADV LT"	
57	STH 67, S. OF US 151, PLACE RIGHT OF EXISTING J4-1 SIGN AS SHOWN	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
58	STH 67, S. OF US 151, COVER EXISTING D1-3 SIGN AS SHOWN	-	-	-	-	-	-	-	-	-	1	1	COVER "CHILTON"	
59	US 151, PLACE ON RIGHT SHOULDER W. OF STH 67, FIELD DETERMINED LOCATION	PCMS	-	1	-	-	-	-	-	7	-	-	PLACE IN ADVANCE OF CLOSURE	
60	US 151, W. OF STH 67, COVER EXISTING J4-1 SIGN AS SHOWN	-	-	-	-	-	-	-	-	-	1	1	COVER ENTIRE SIGN	
61	US 151, AT STH 67, PLACE ON RIGHT SHOULDER AT STH 67 INTERSECTION	R 11-4	60"X30"	1	15	15	15	30	-	-	-	-		
	"	M 4-9L	30"X24"	1	15	15	-	-	-	-	-	-		
62	US 151, E. OF STH 67, PLACE 150' E. OF STH 67 INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	MO 6-1	21"X21"	1	15	15	-	-	-	-	-	-	LEFT	
63	US 151, E. OF STH 67, COVER EXISTING D1-3 AS SHOWN	-	-	-	-	-	-	-	-	-	1	1	COVER "HAYTON-CHILTON"	
64	US 151, E. OF STH 67, PLACE 850' E. OF STH 67 INTERSECTION	M 4-8	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 3-3	24"X12"	1	15	15	-	-	-	-	-	-		
	"	M 1-4	24"X24"	1	15	15	-	-	-	-	-	-	151	
	"	MO 5-1L	21"X21"	1	15	15	-	-	-	-	-	-		
65	US 151, E. OF STH 67, PLACE 1/4 MILE E. OF STH 67 INTERSECTION	W 20-2A	48"X48"	1	15	15	-	-	-	-	-	-		
TOTALS						2,670	30	60	37.5	14	-	9		

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

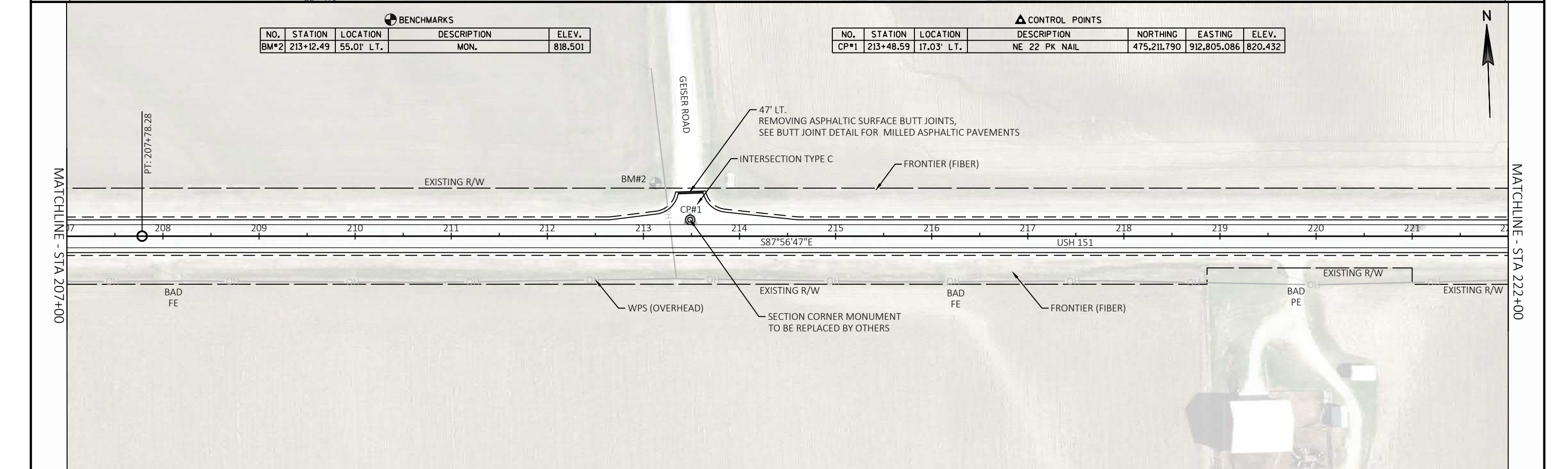
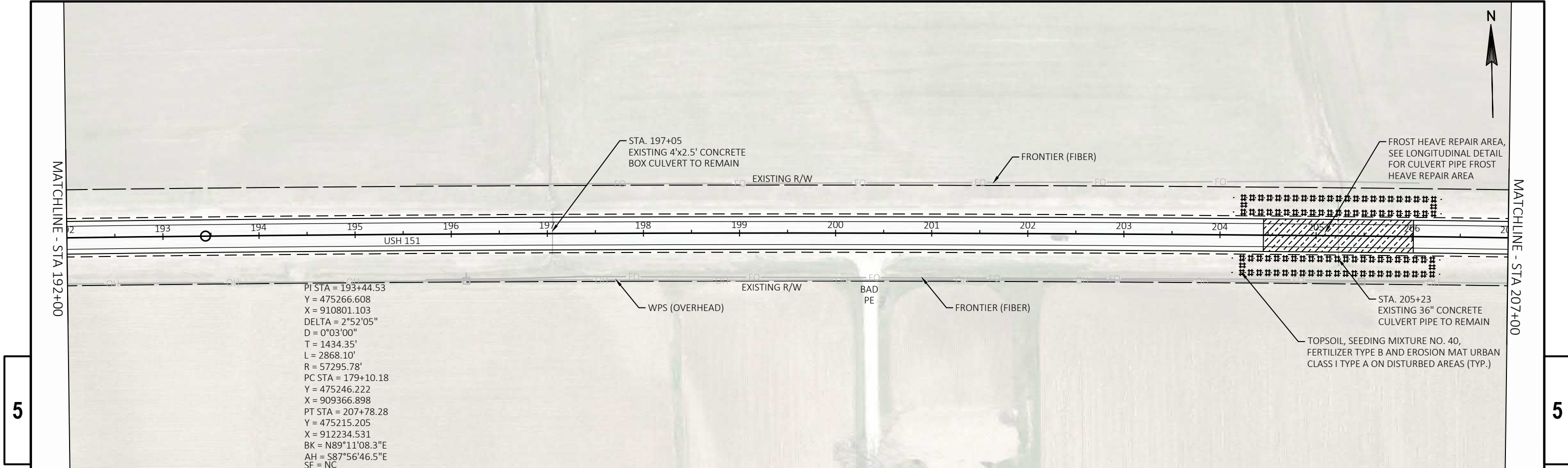




BENCHMARKS				
NO.	STATION	LOCATION	DESCRIPTION	ELEV.
BM*1	118+45.23	20.51' RT.	TOP OF BRIDGE RAIL	829.957



PROJECT NO: 4100-38-60	HWY: USH 151	COUNTY: CALUMET	PLAN DETAIL	SHEET	E
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BENCHMARKS				
NO.	STATION	LOCATION	DESCRIPTION	ELEV.
BM#2	213+12.49	55.01' LT.	MON.	818.501

CONTROL POINTS						
NO.	STATION	LOCATION	DESCRIPTION	NORTHING	EASTING	ELEV.
CP#1	213+48.59	17.03' LT.	NE 22 PK NAIL	475,211.790	912,805.086	820.432

PROJECT NO: 4100-38-60

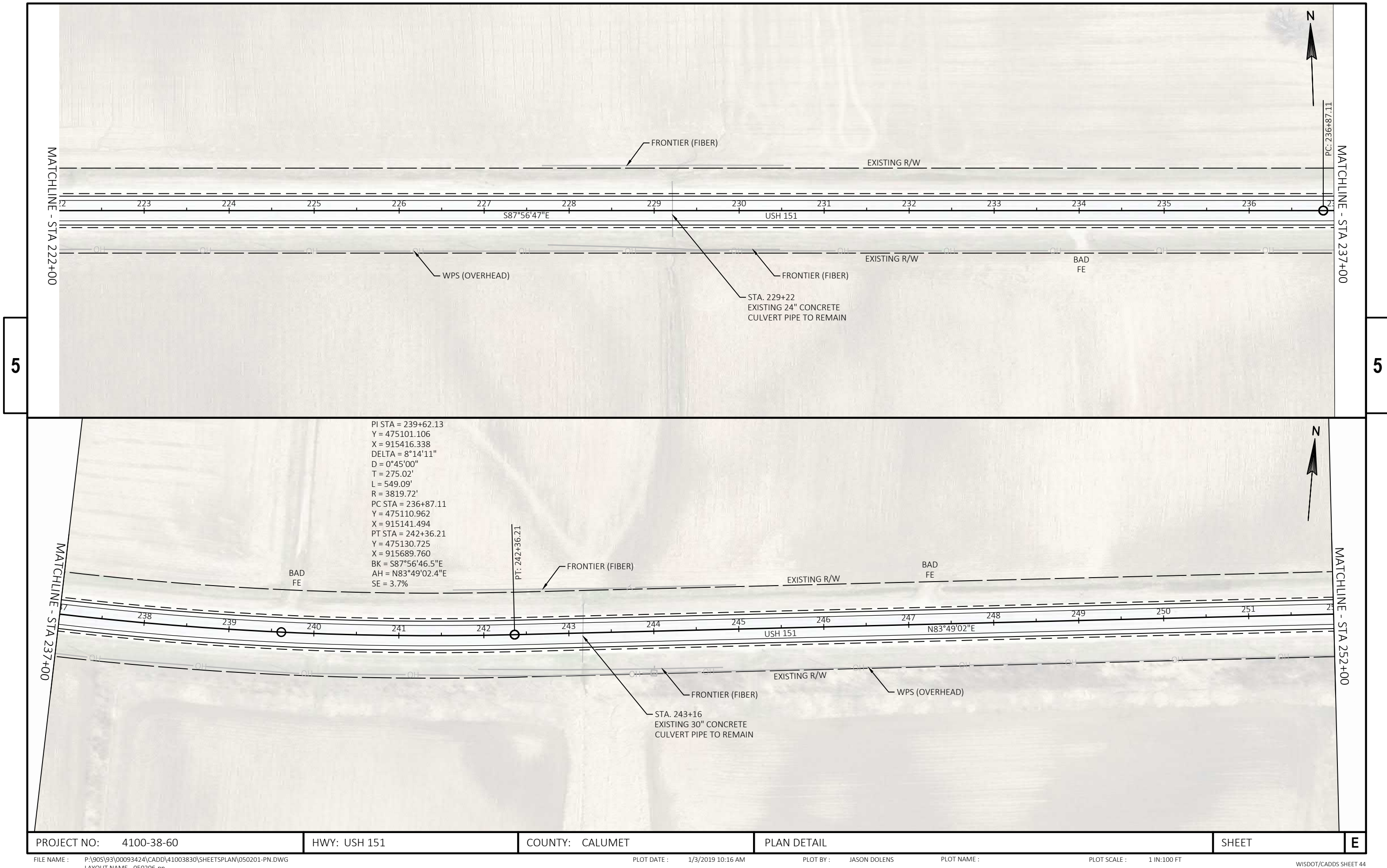
HWY: USH 151

COUNTY: CALUMET

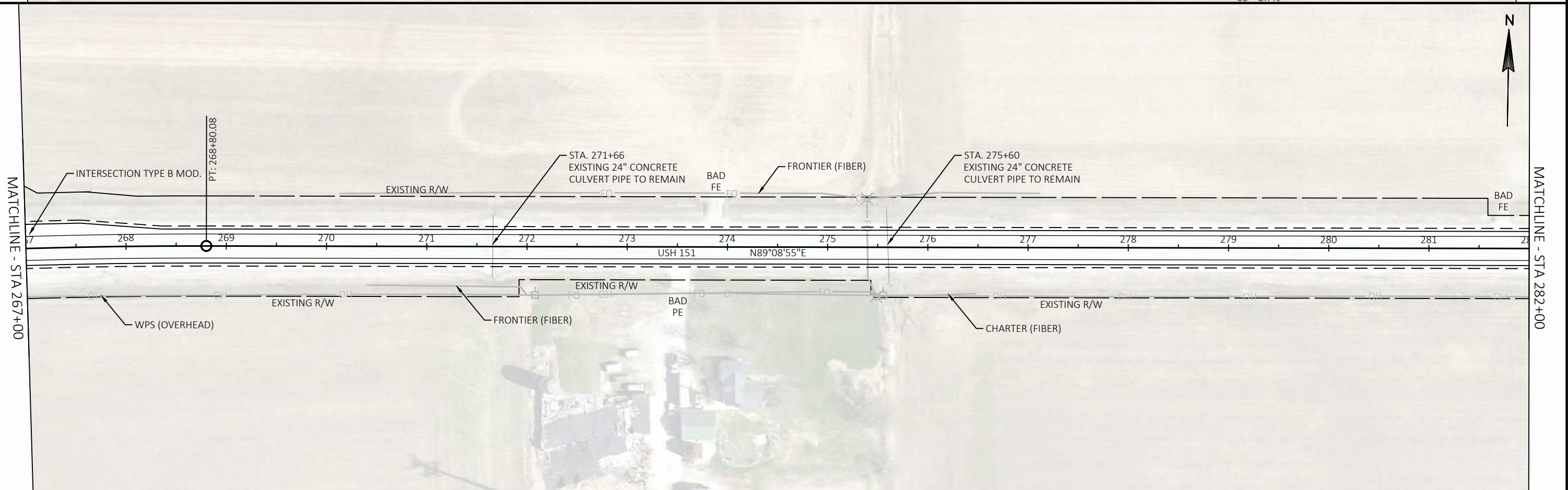
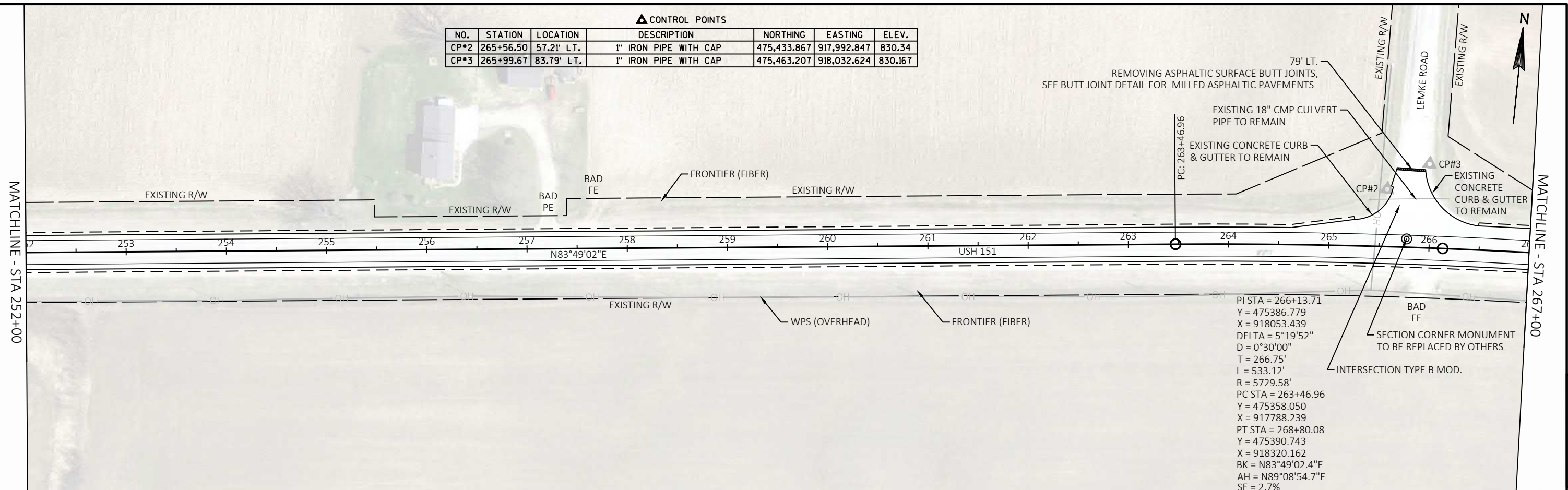
PLAN DETAIL

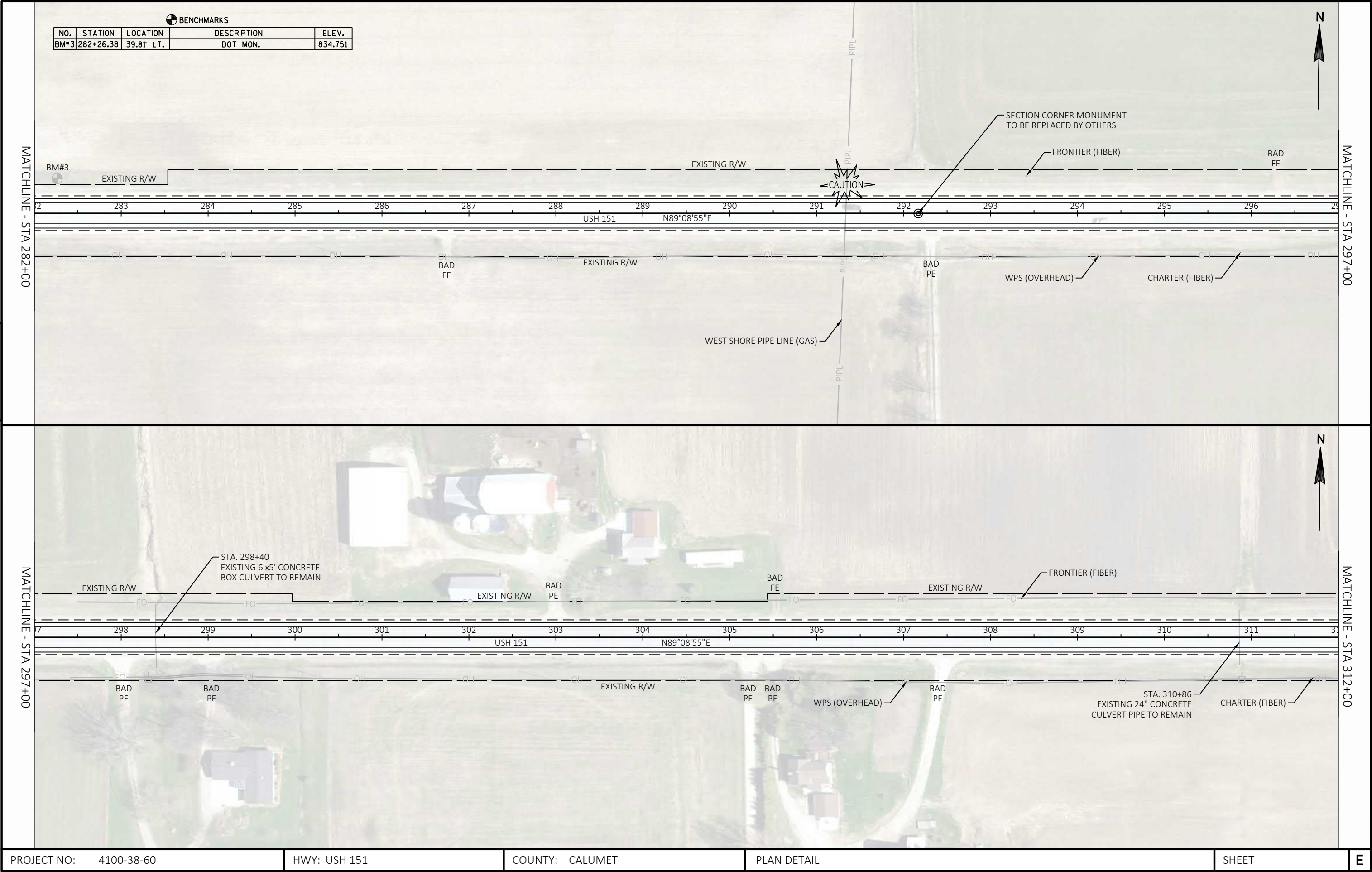
SHEET

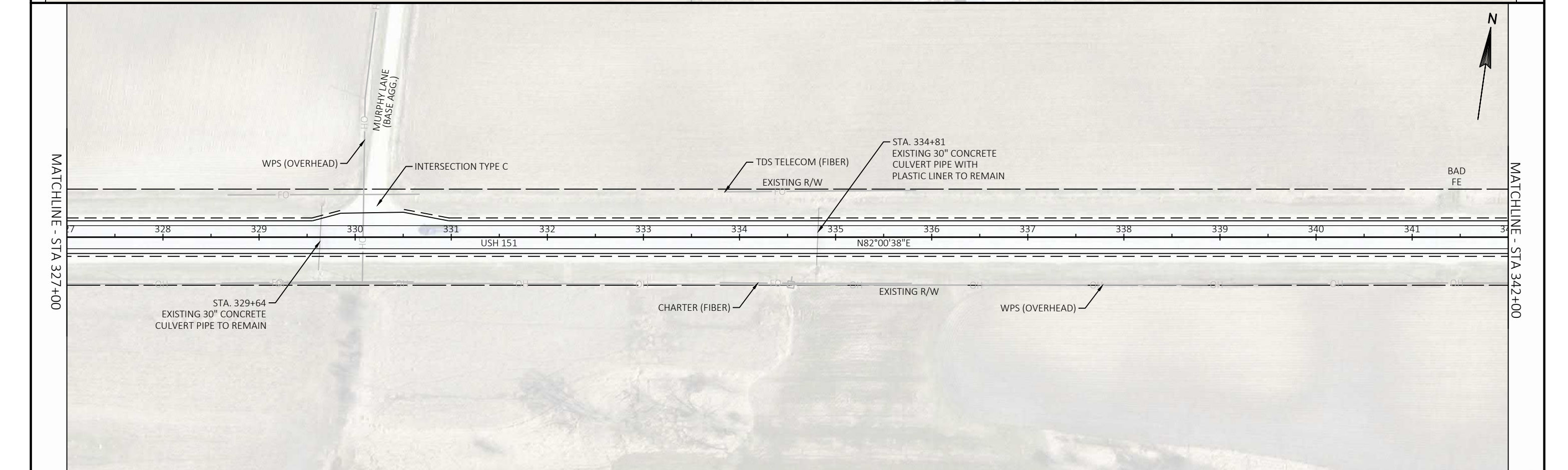
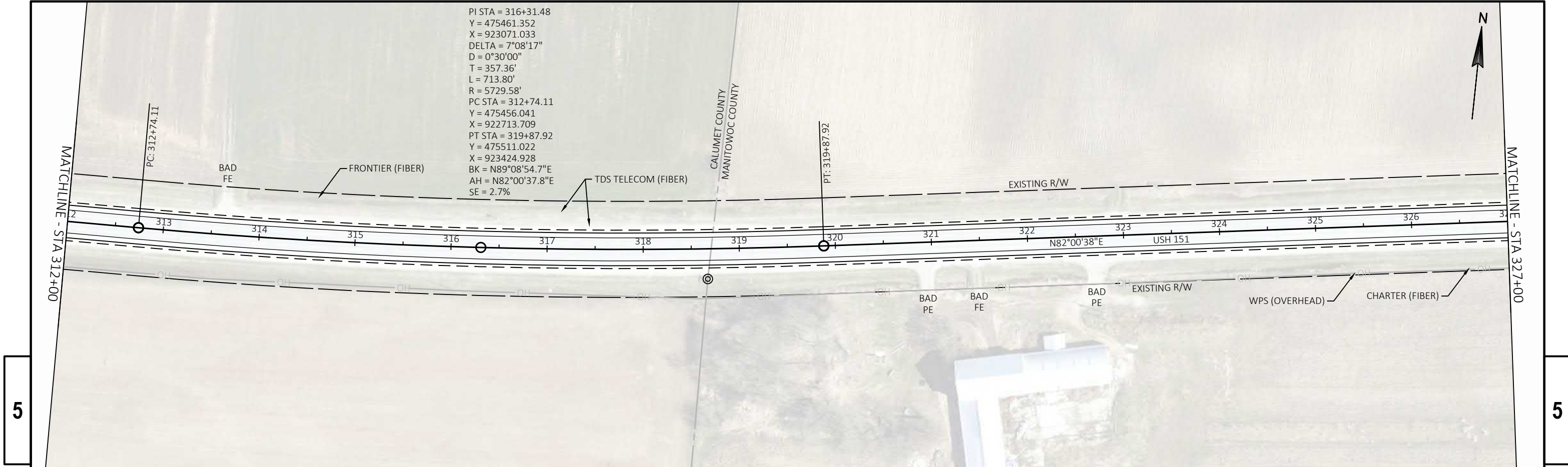
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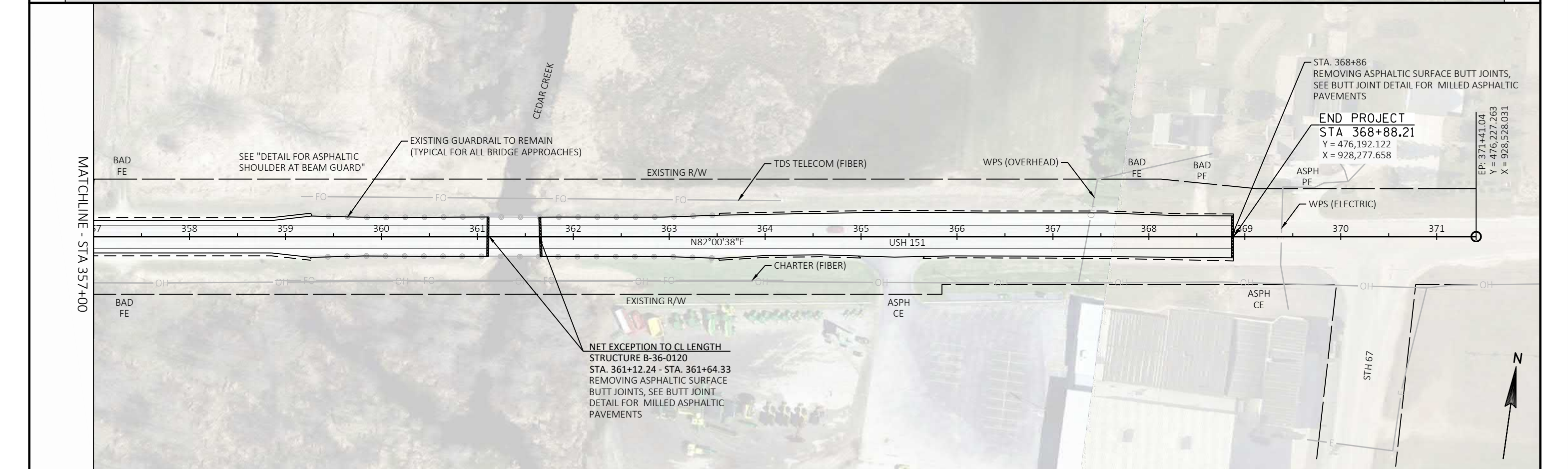
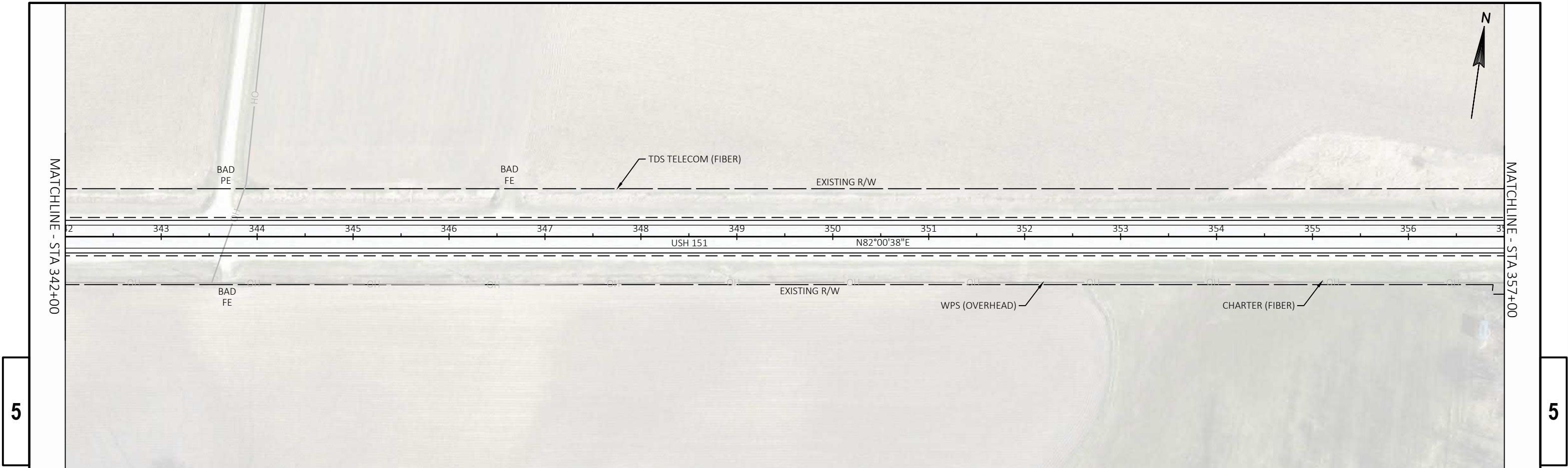
▲ CONTROL POINTS						
NO.	STATION	LOCATION	DESCRIPTION	NORTHING	EASTING	ELEV.
CP#2	265+56.50	57.21' LT.	1" IRON PIPE WITH CAP	475,433.867	917,992.847	830.34
CP#3	265+99.67	83.79' LT.	1" IRON PIPE WITH CAP	475,463.207	918,032.624	830.167







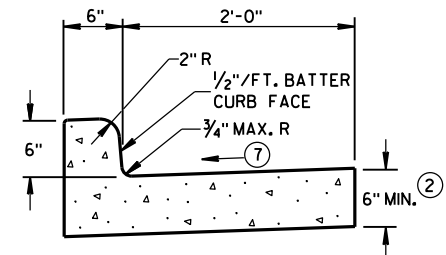
PROJECT NO: 4100-38-60	HWY: USH 151	COUNTY: CALUMET/MANITOWOC	PLAN DETAIL	SHEET	E
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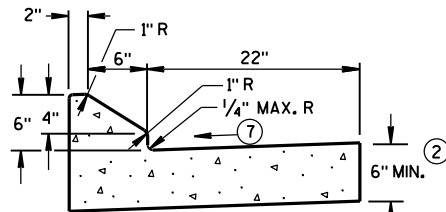
PROJECT NO: 4100-38-60	HWY: USH 151	COUNTY: MANITOWOC	PLAN DETAIL	SHEET	E
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Standard Detail Drawing List

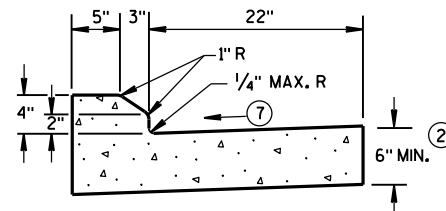
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13A10-02A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13B01-10	PAVEMENT DETAILS FOR RAILROAD APPROACH
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-07A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-07B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-07C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C09-11A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C11-07A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-06	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-05A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING



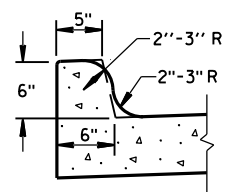
TYPES A^① & D



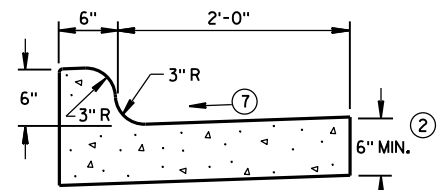
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

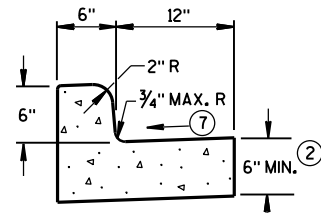


TYPES K^① & L
(OPTIONAL CURB SHAPE)



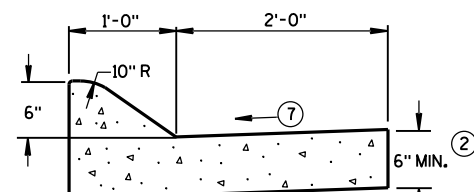
TYPES K^① & L

CONCRETE CURB & GUTTER 30"

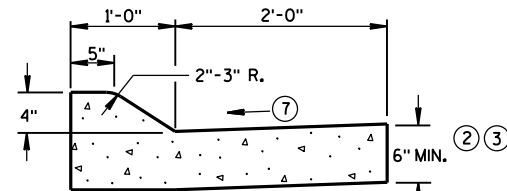


TYPES A^① & D

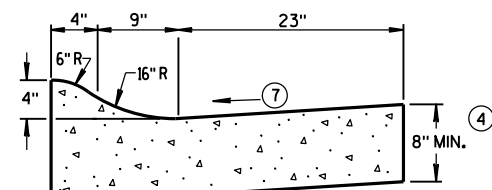
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A^① & D

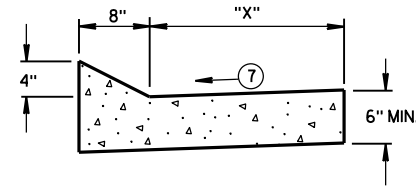


4" SLOPED CURB TYPES A^① & D



4" SLOPED CURB TYPES R^① & T^⑤

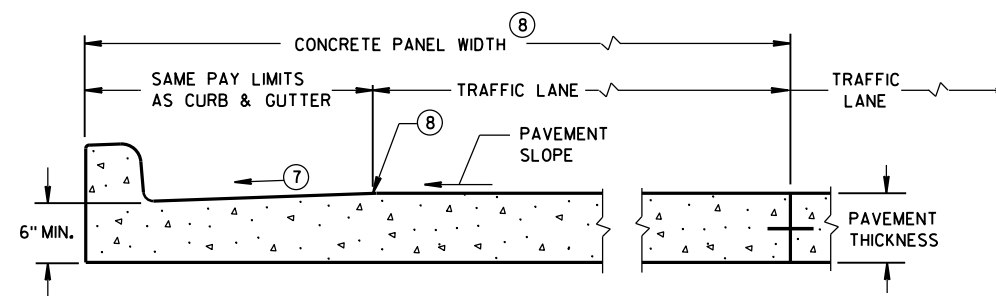
CONCRETE CURB & GUTTER 36"



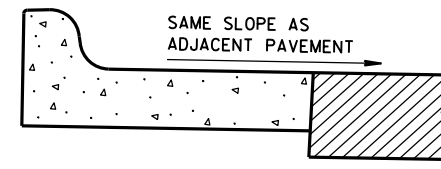
TYPES TBT & TBTT^①

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"



PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



REVERSE SLOPE GUTTER^⑥
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

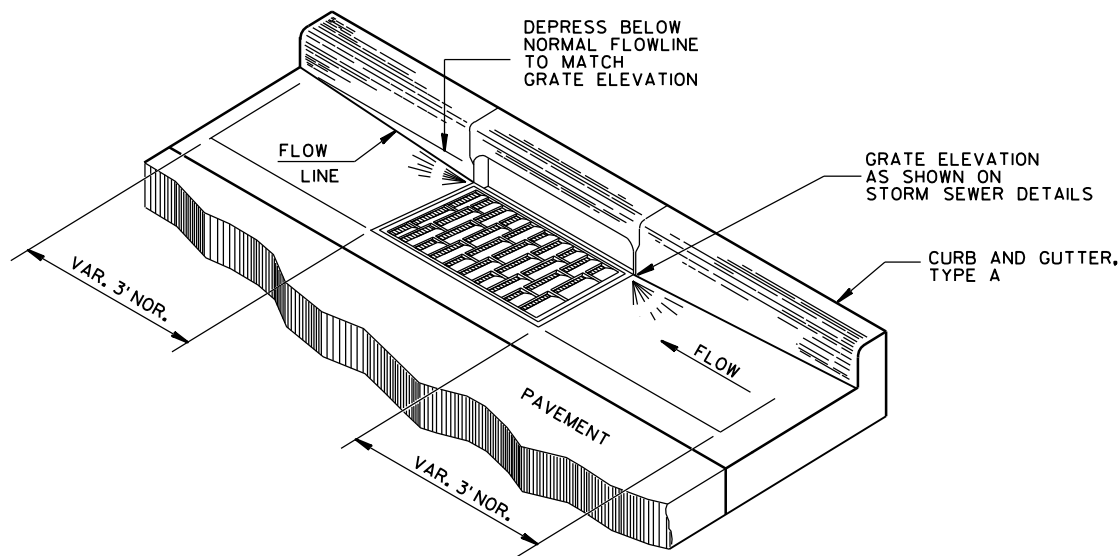
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'

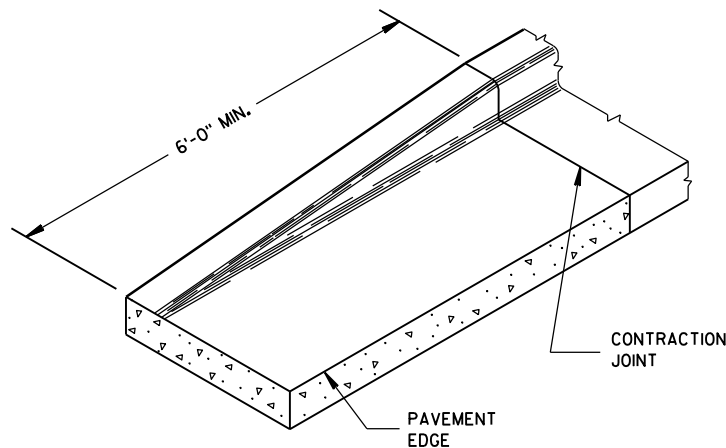
* BIKE LANE IS NOT SHOWN.

CONCRETE CURB & GUTTER

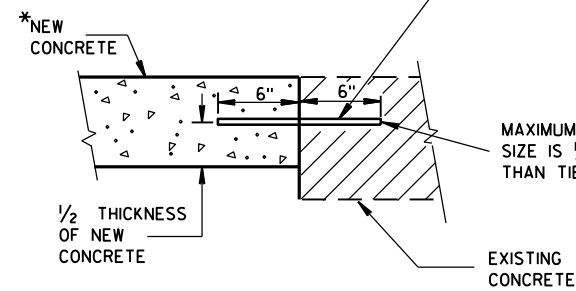
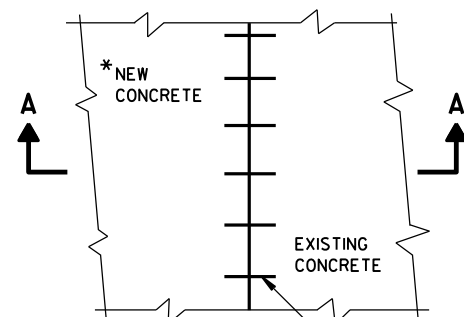
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



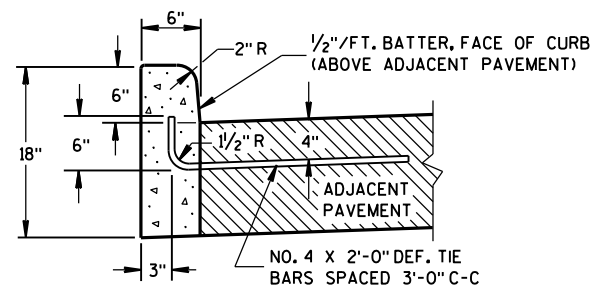
DETAIL OF CURB AND GUTTER AT INLETS
(TYPE H INLET COVER SHOWN)



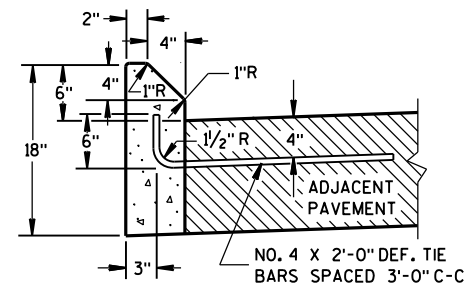
END SECTION CURB & GUTTER



TIE BARS DRILLED
INTO EXISTING PAVEMENT



TYPES A^① & D

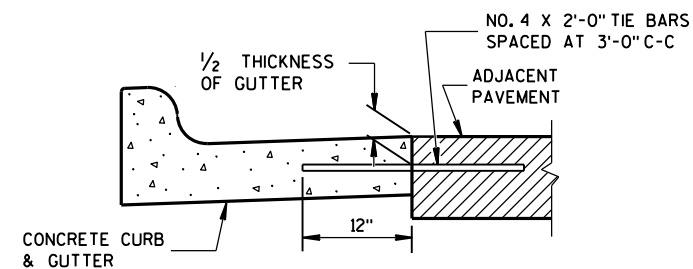


TYPES G^① & J

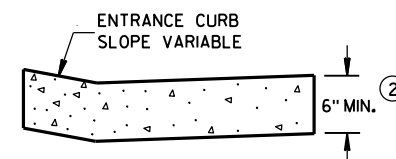
GENERAL NOTES

- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
- PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.
- UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.
 - ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
 - ③ REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

CONCRETE CURB



TYPICAL TIE BAR LOCATION^①

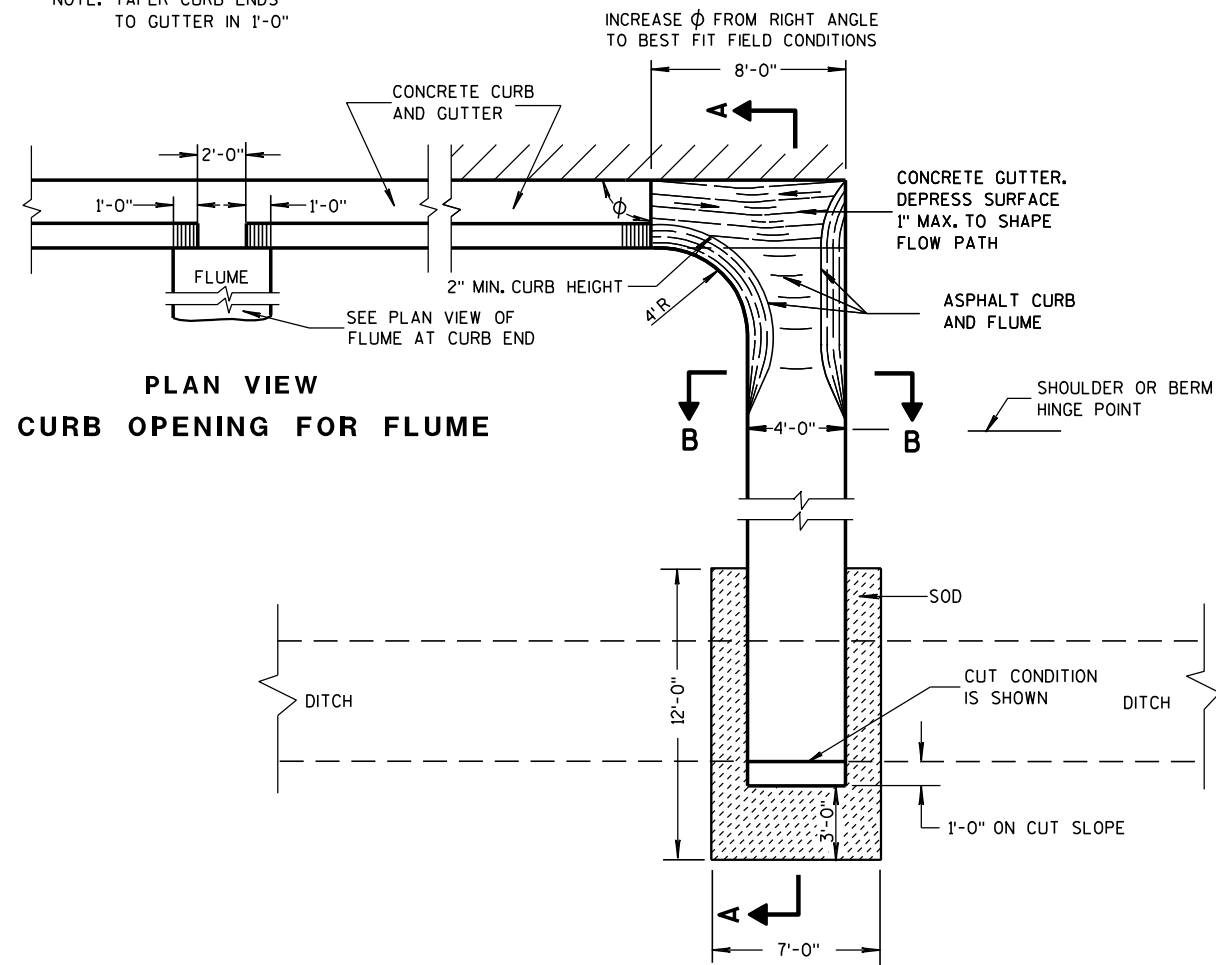


DRIVEWAY ENTRANCE CURB^⑨
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June, 2017 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	

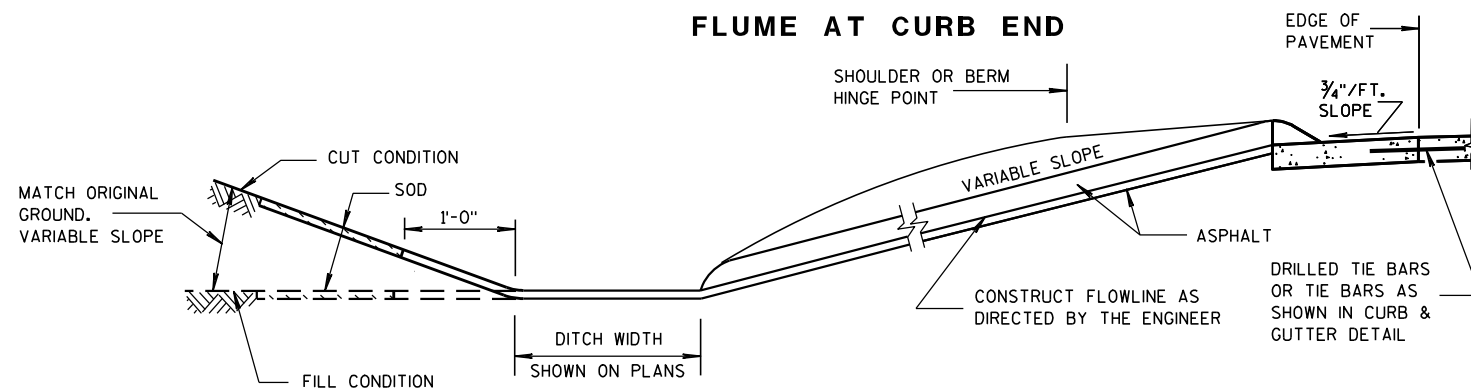
ASPHALTIC FLUME

NOTE: TAPER CURB ENDS
TO GUTTER IN 1'-0"

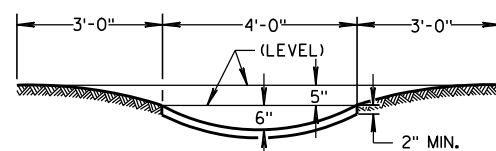


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

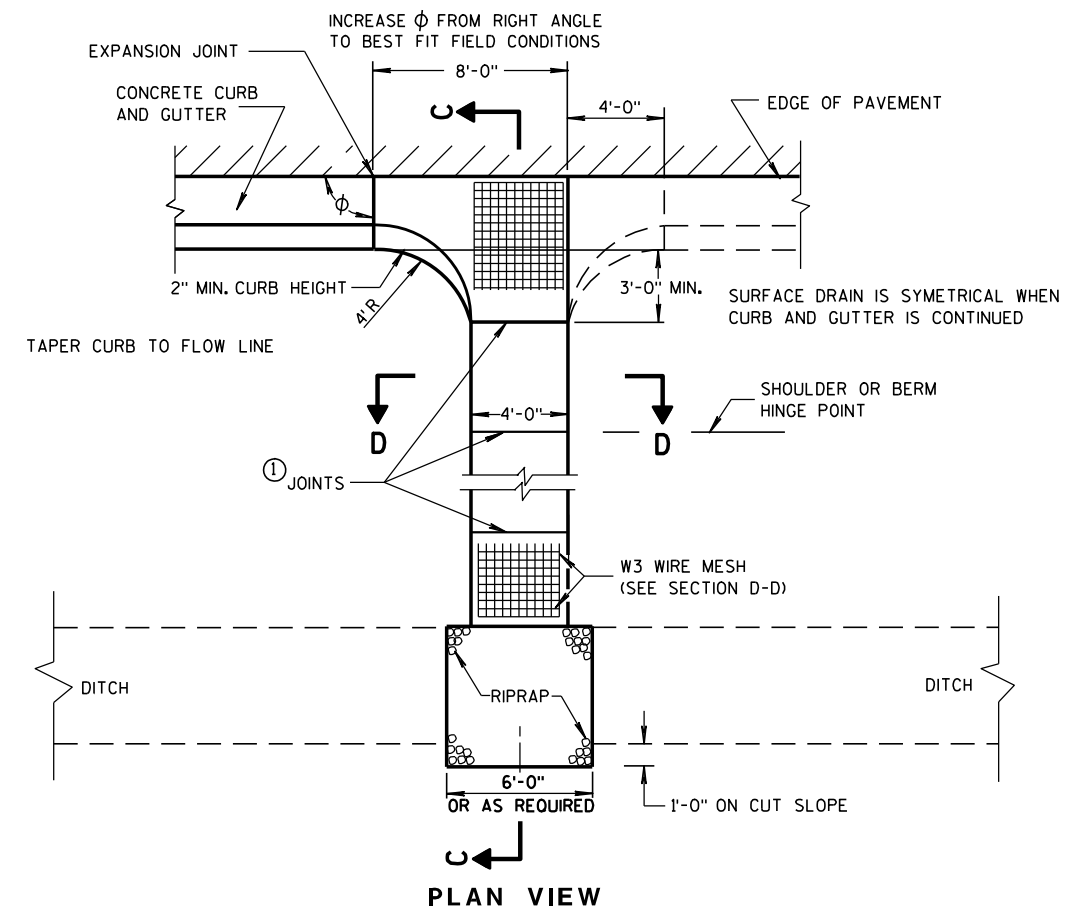
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

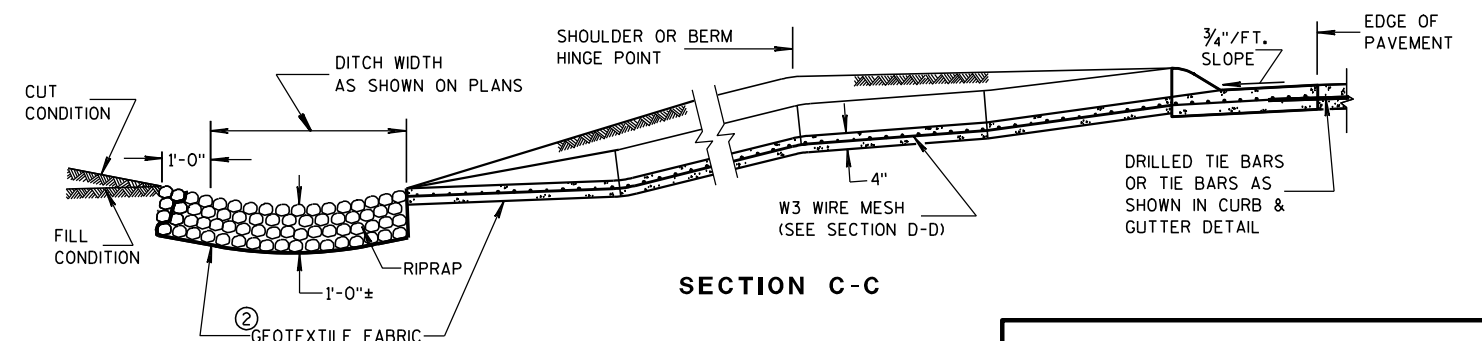
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

- ① JOINTS SHALL BE 1/8" TO 1/4" INCH WIDE BY 1 1/2" INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

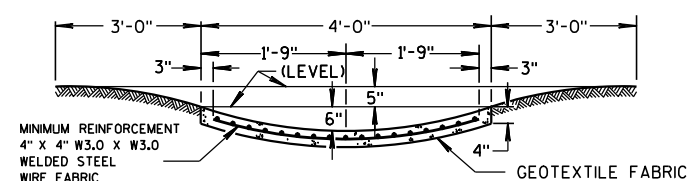
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

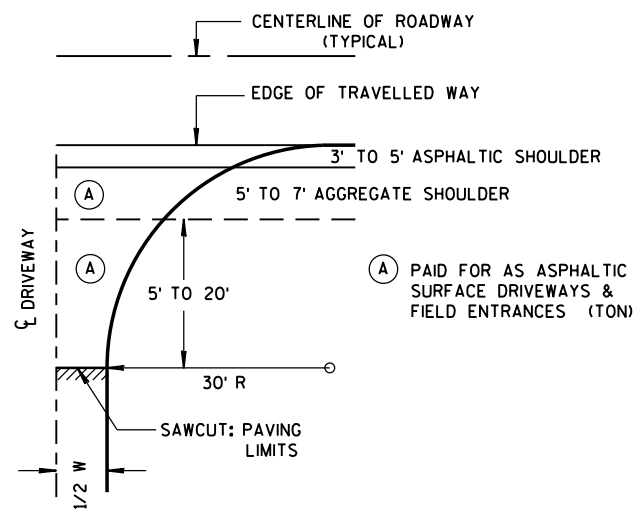
APPROVED

9-4-08

DATE

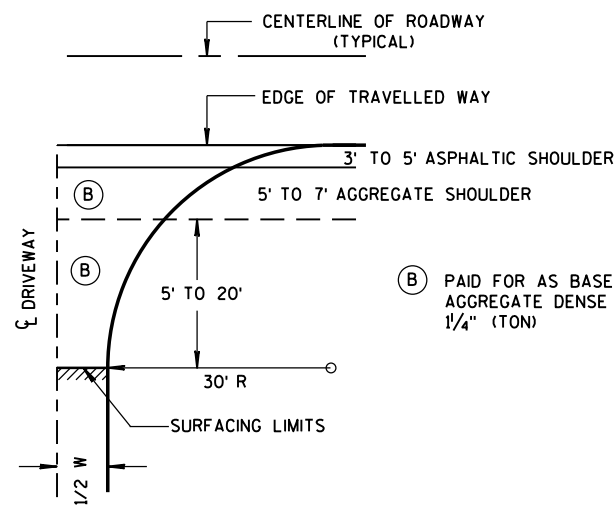
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

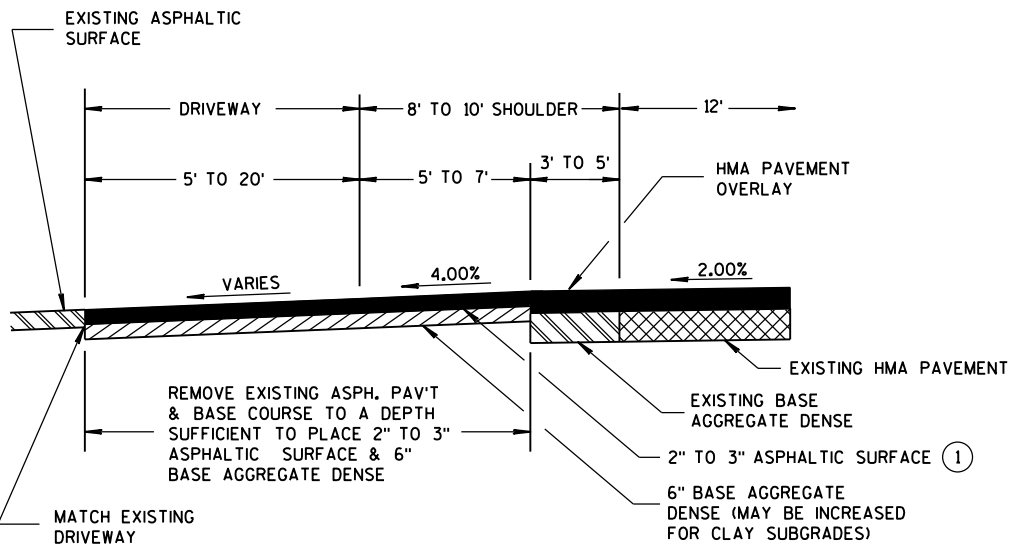


PLAN VIEW
HALF SECTION

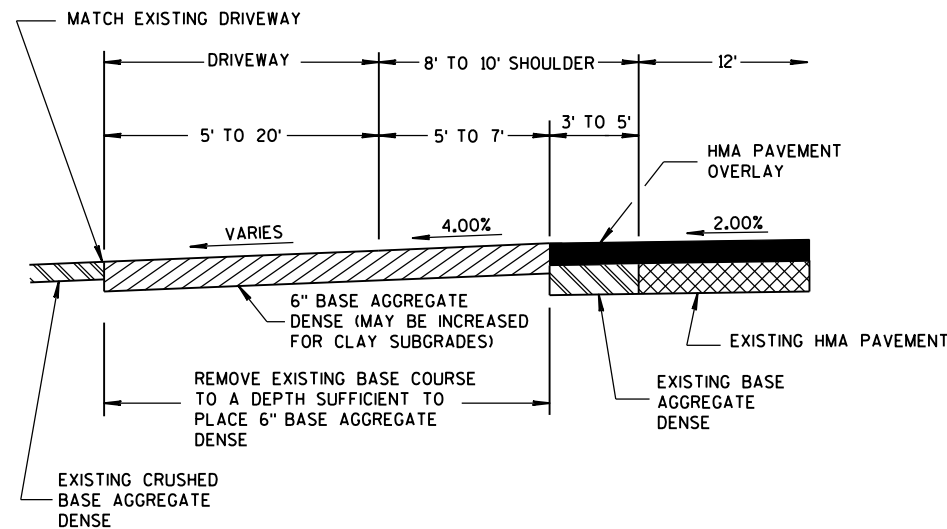
W MIN. = 16'
W MAX. = 24'



PLAN VIEW
HALF SECTION



PROFILE VIEW
RURAL ENTRANCE
WITH ASPHALTIC SURFACE
RESURFACING PROJECTS

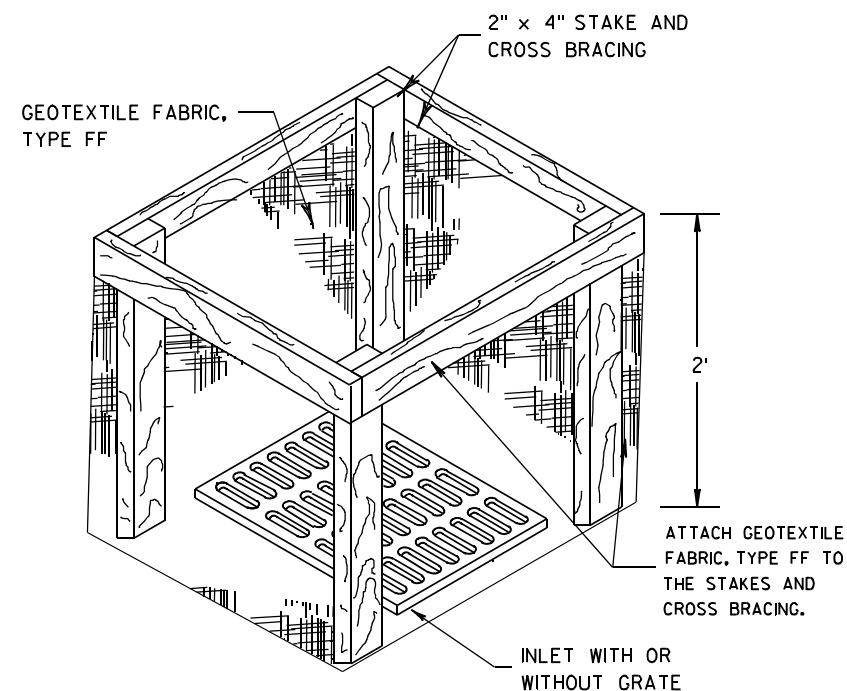
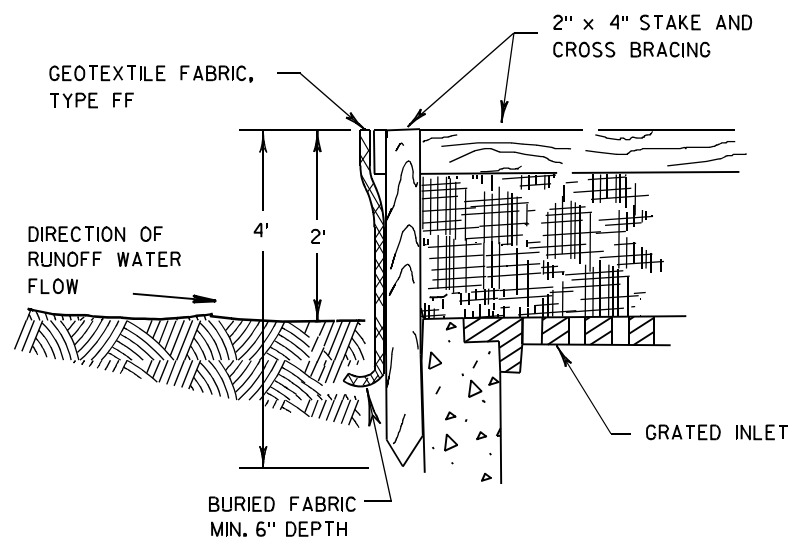


PROFILE VIEW
RURAL ENTRANCE
WITH AGGREGATE SURFACE
6" BASE AGGREGATE DENSE
RESURFACING PROJECTS

GENERAL NOTES

- ① DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.

DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED December, 2016	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
DATE	FHWA



INLET PROTECTION, TYPE A

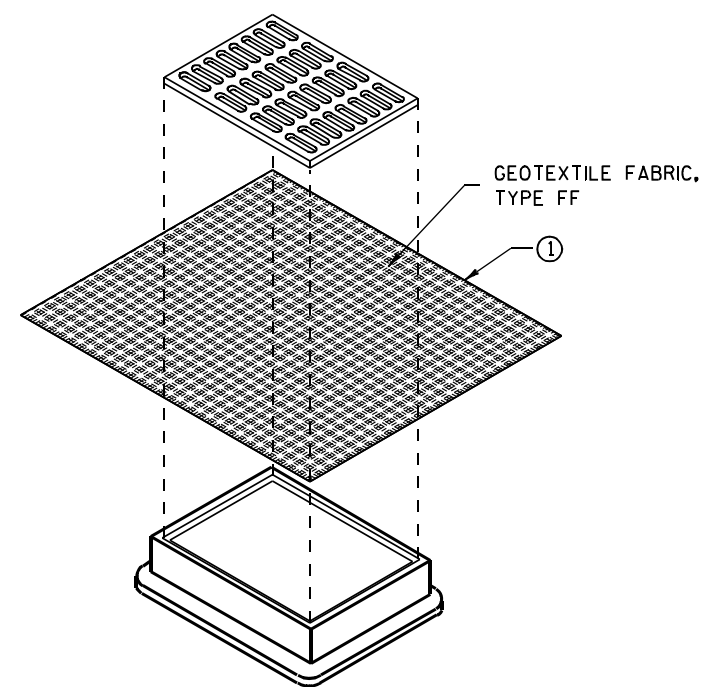
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

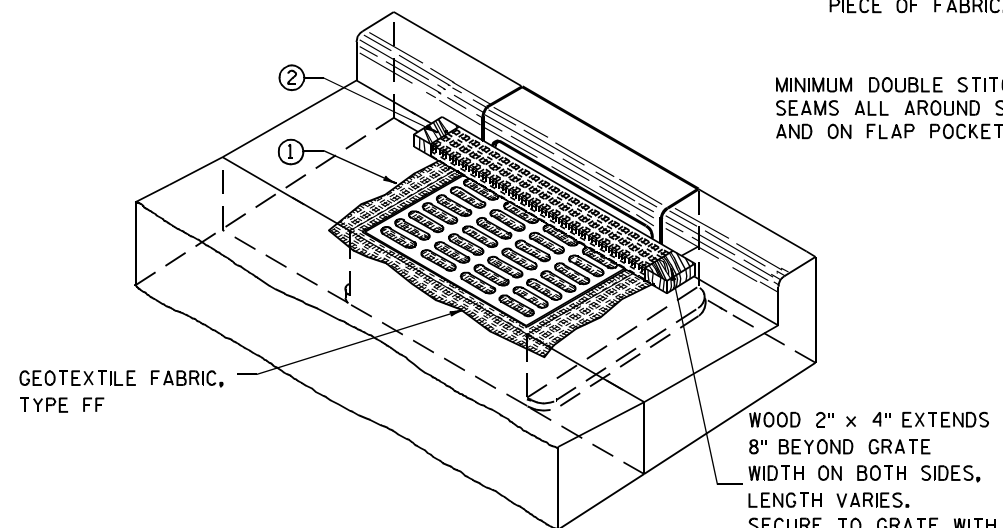
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

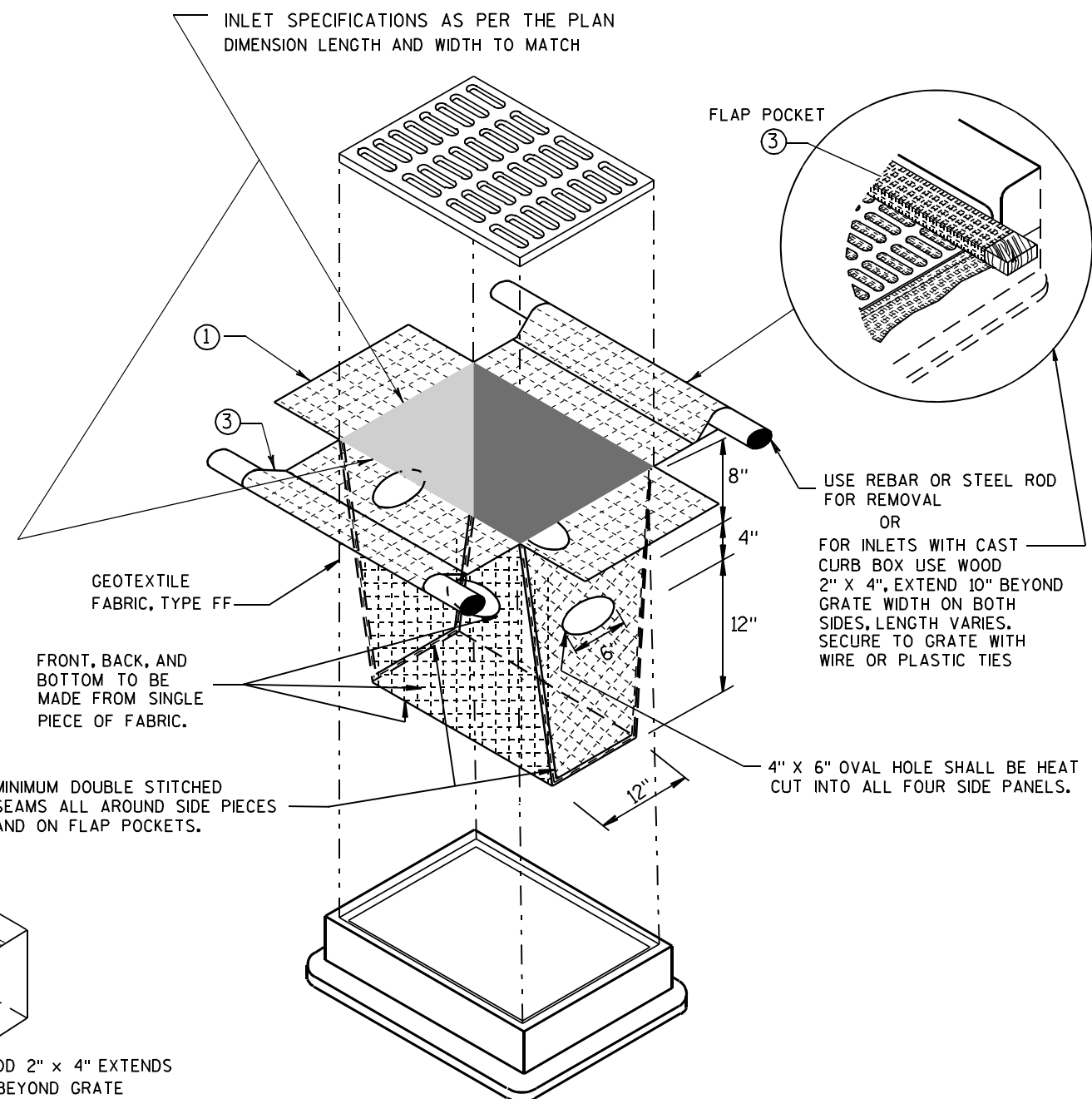
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLower THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

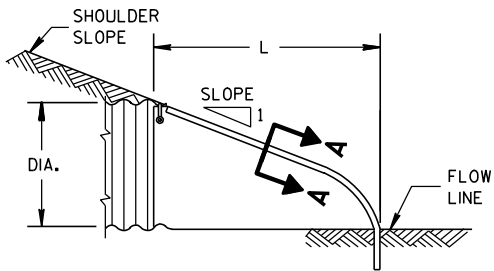
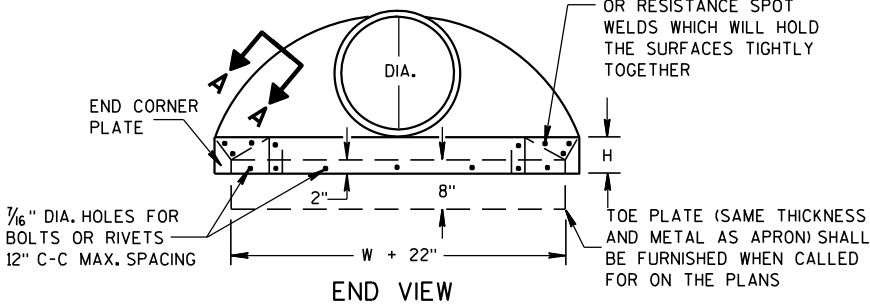
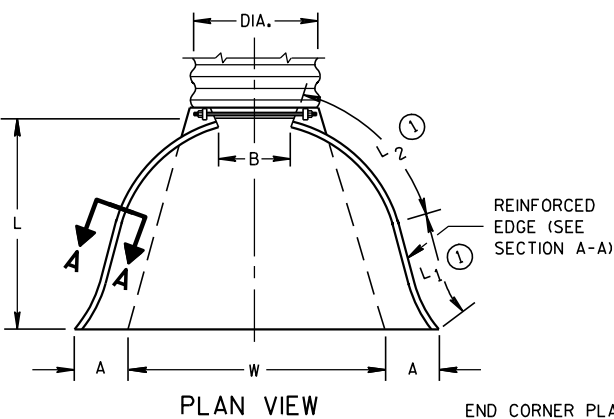
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Cannestra
DATE
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER

METAL APRON ENDWALLS												
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY	
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L ₁ ①	L ₂ ①	W (±2")			
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.	
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.	
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.	
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.	
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.	
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.	
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.	
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.	
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.	
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.	
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.	
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.	
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.	
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.	
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.	
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.	
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.	

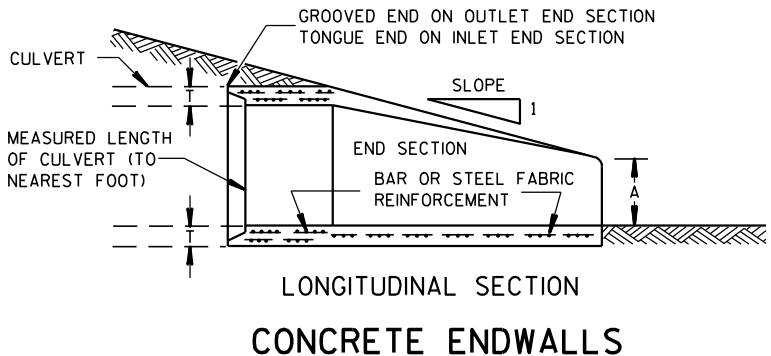
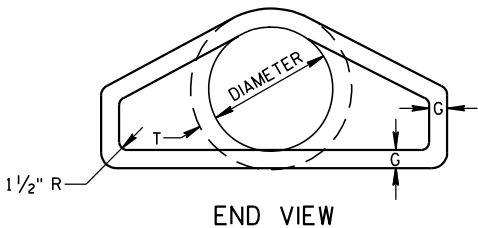
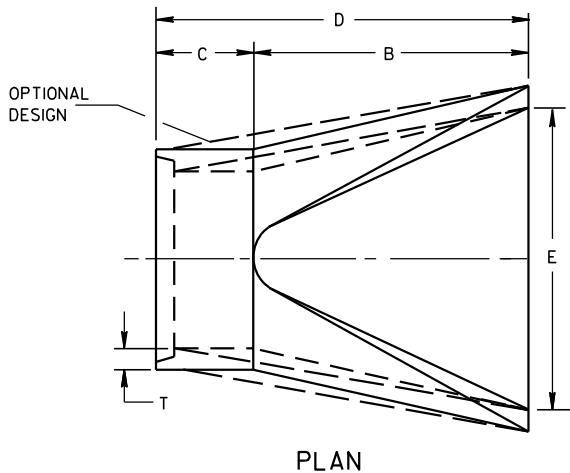
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



SIDE ELEVATION
METAL ENDWALLS

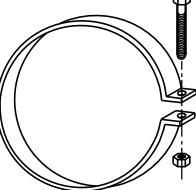
REINFORCED CONCRETE APRON ENDWALLS								
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE
	T	A	B	C	D	E	G	
12	2	4	24	48 ¹ / ₈	72 ¹ / ₈	24	2	3 to 1
15	2 ¹ / ₄	6	27	46	73	30	2 ¹ / ₄	3 to 1
18	2 ¹ / ₂	9	27	46	73	36	2 ¹ / ₂	3 to 1
21	2 ³ / ₄	9	36	37 ¹ / ₂	73 ¹ / ₂	42	2 ³ / ₄	3 to 1
24	3	9 ¹ / ₂	43 ¹ / ₂	30	73 ¹ / ₂	48	3	3 to 1
27	3 ¹ / ₄	10 ¹ / ₂	49 ¹ / ₂	24	73 ¹ / ₂	54	3 ¹ / ₄	3 to 1
30	3 ¹ / ₂	12	54	19 ³ / ₄	73 ¹ / ₂	60	3 ¹ / ₂	3 to 1
36	4	15	63	34 ³ / ₄	97 ³ / ₄	72	4	3 to 1
42	4 ¹ / ₂	21	63	35	98	78	4 ¹ / ₂	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 ¹ / ₂	27	65	33 ¹ / ₄ -35	98 ¹ / ₄ -100	90	5 ¹ / ₂	2 ¹ / ₂ to 1
60	6	30-35	60	39	99	96	5	2 to 1
66	6 ¹ / ₂	24-30	72-78	21-27	99	102	5 ¹ / ₂	2 to 1
72	7	24-36	78	21	99	108	6	2 to 1
78	7 ¹ / ₂	24-36	78	21	99	114	6 ¹ / ₂	2 to 1
84	8	36	90 ¹ / ₂	21	111 ¹ / ₂	120	6 ¹ / ₂	1 ¹ / ₂ to 1
90	8 ¹ / ₂	41	87 ¹ / ₂	24	111 ¹ / ₂	132	6 ¹ / ₂	1 ¹ / ₂ to 1

* MINIMUM
** MAXIMUM

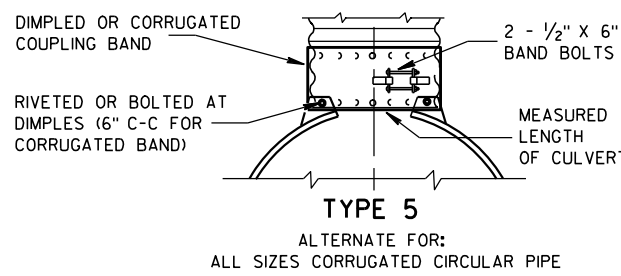
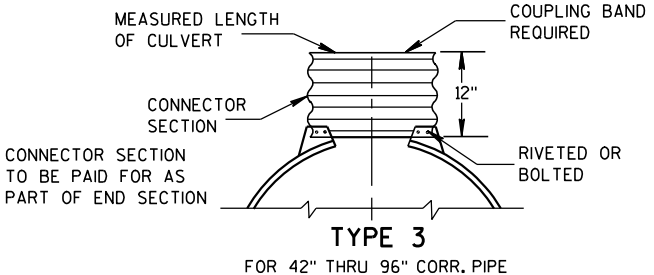
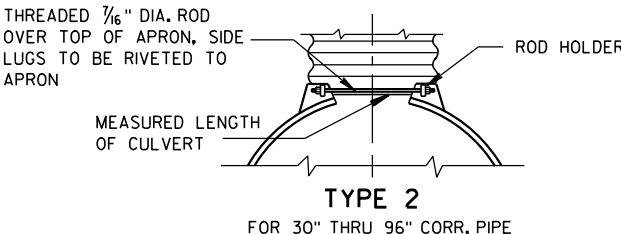
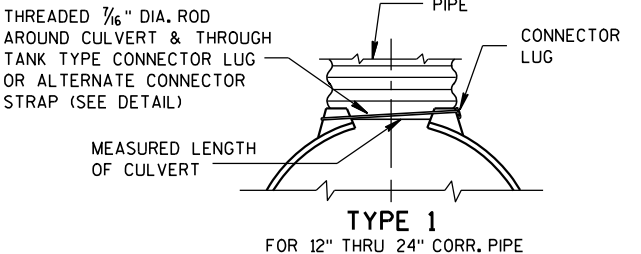


LONGITUDINAL SECTION
CONCRETE ENDWALLS

1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



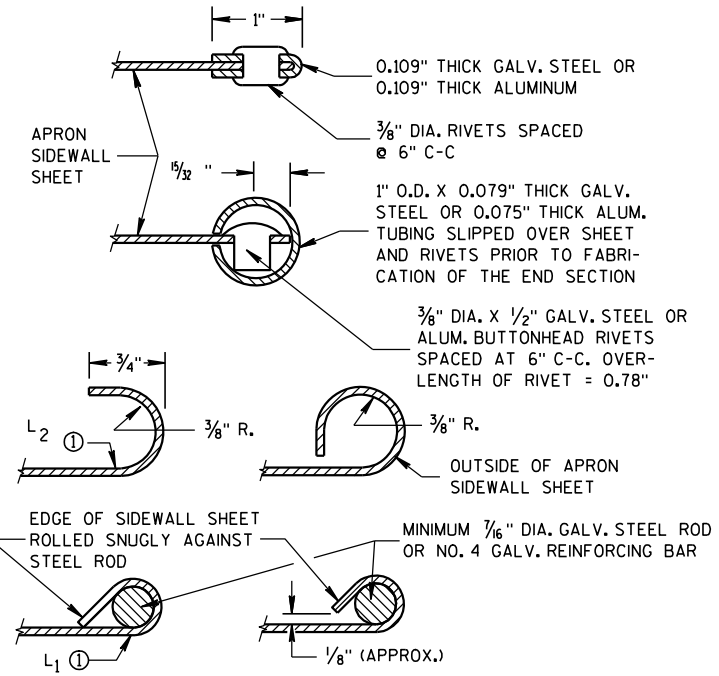
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

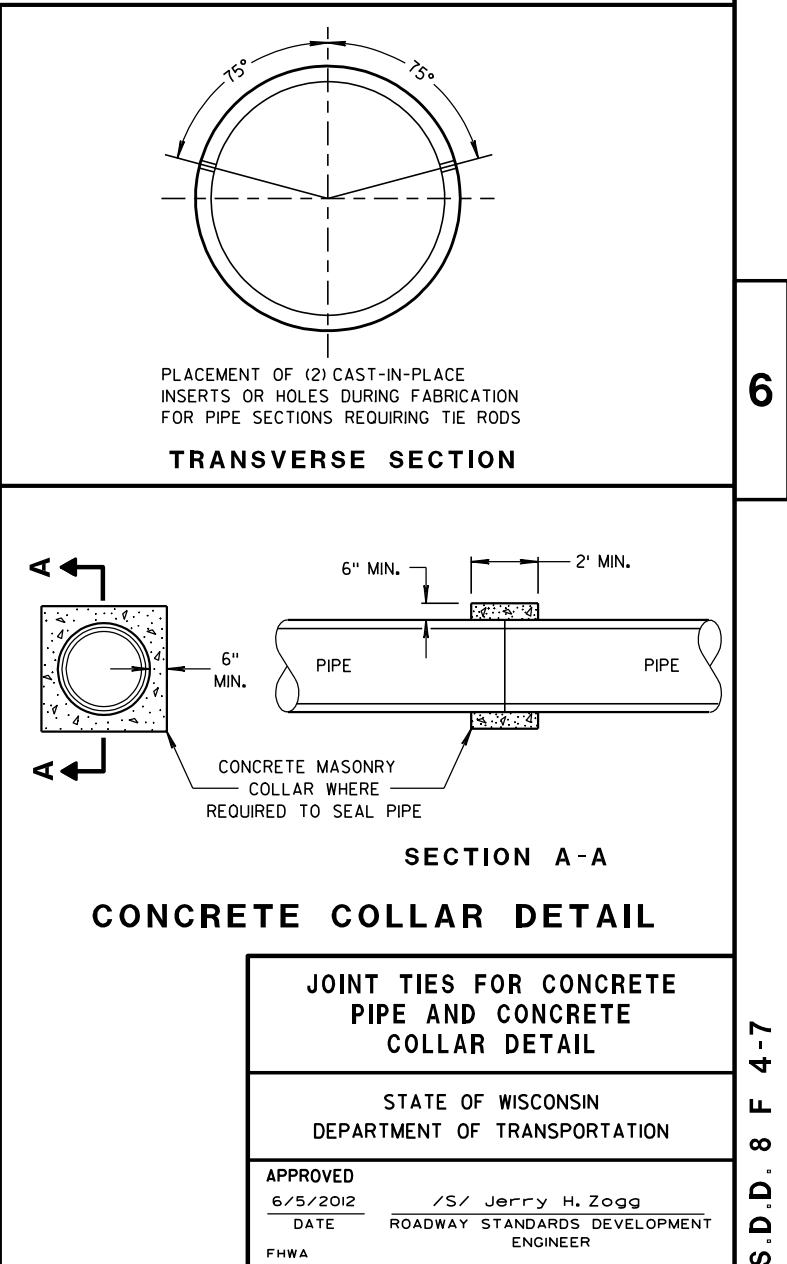
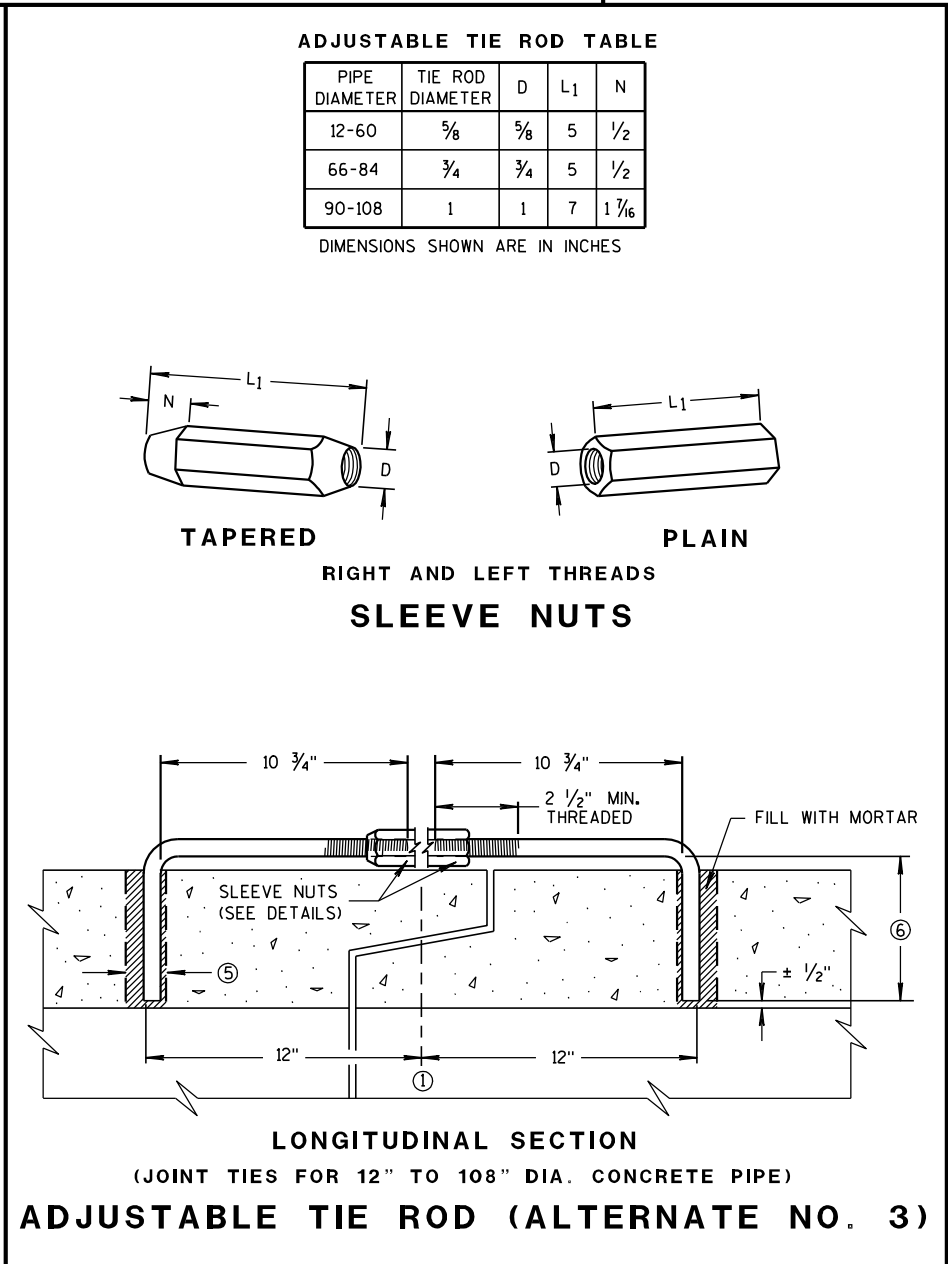
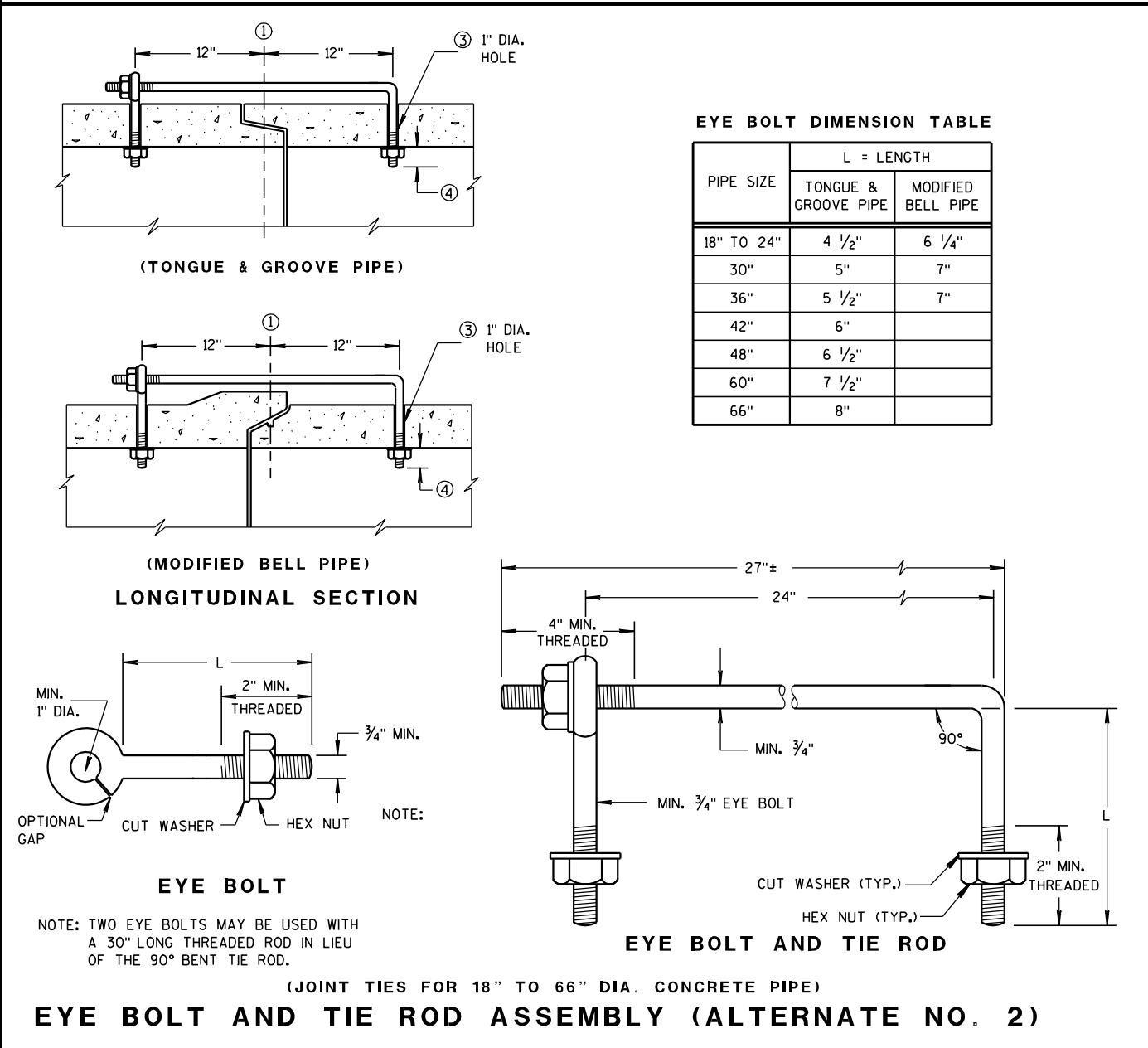
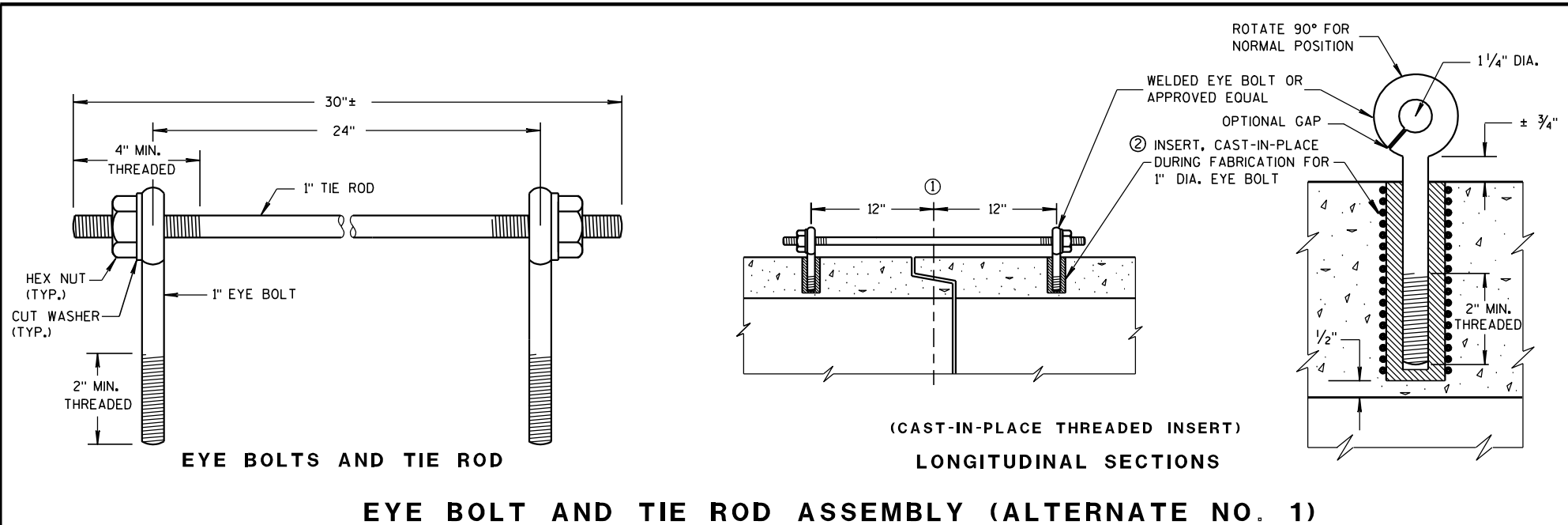
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

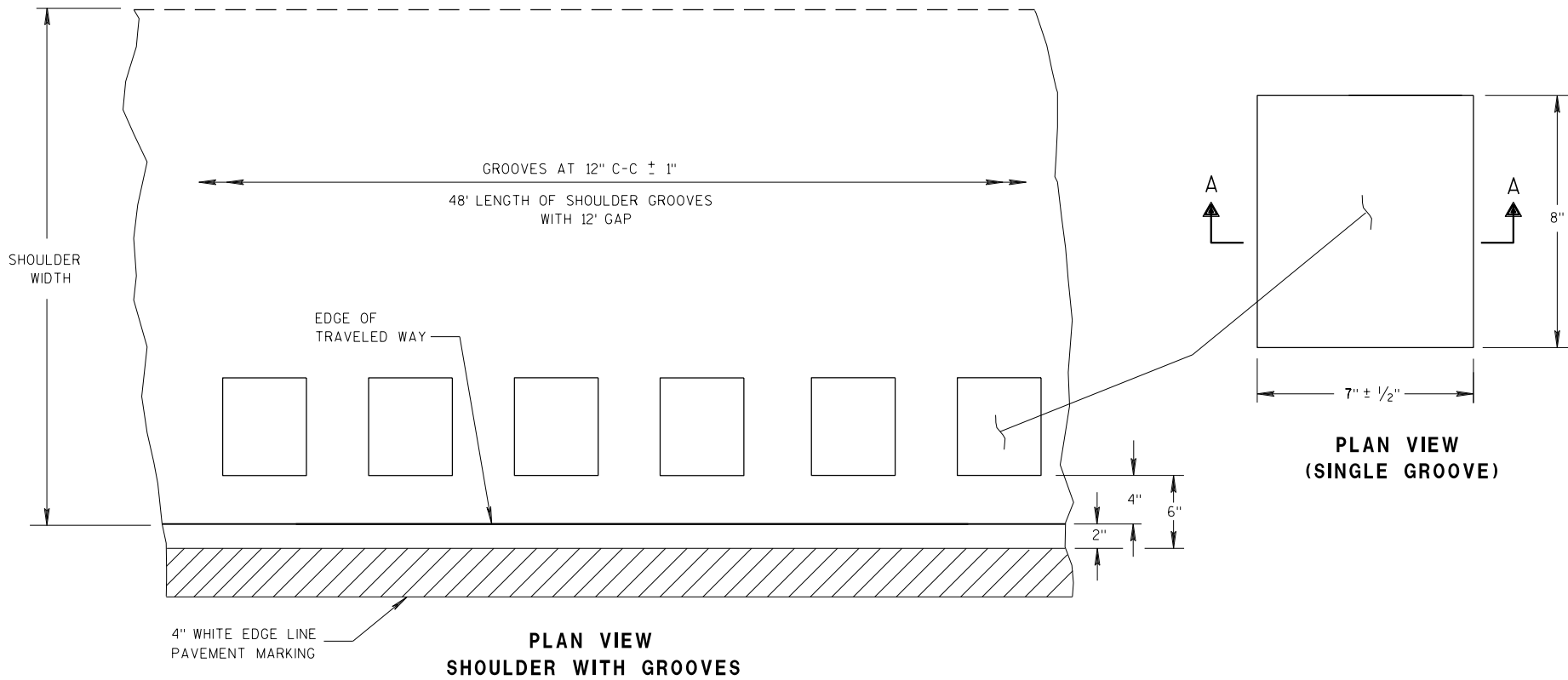
LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 11/30/94 DATE	/S/ Rory L. Rhinesmith CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

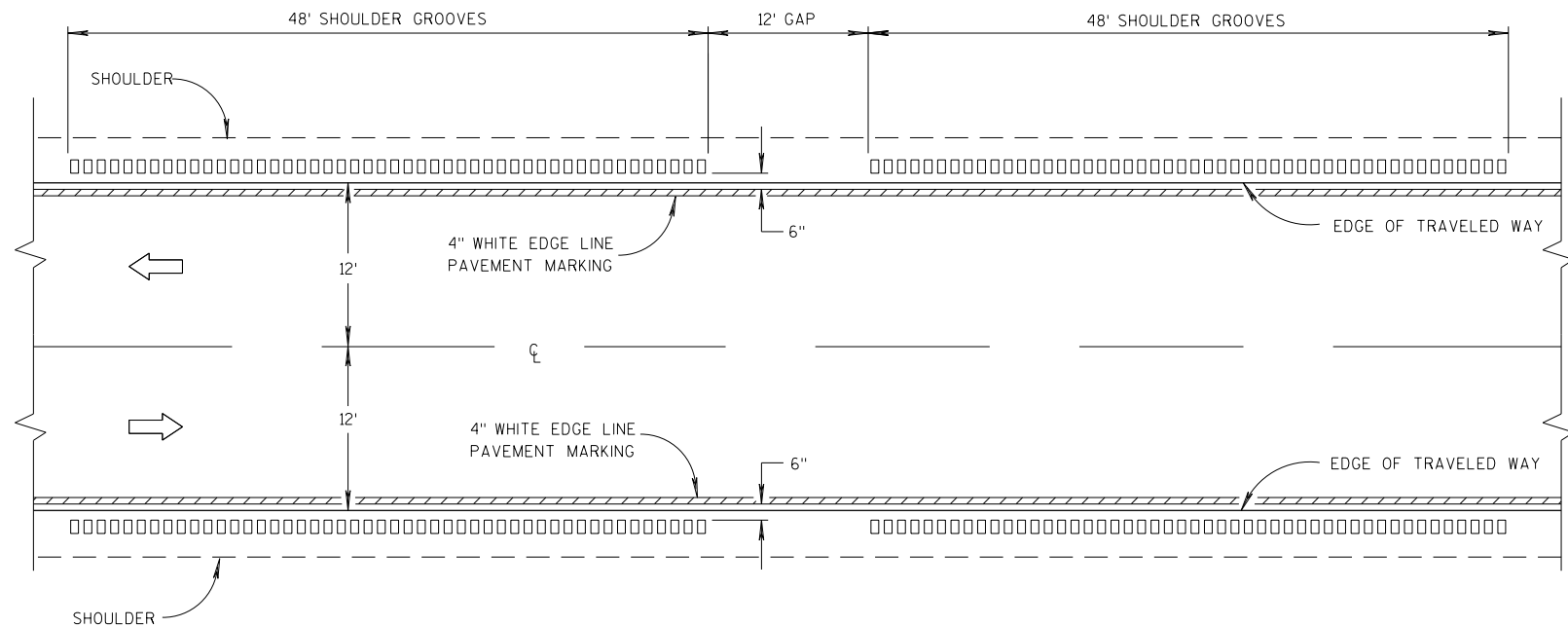




PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



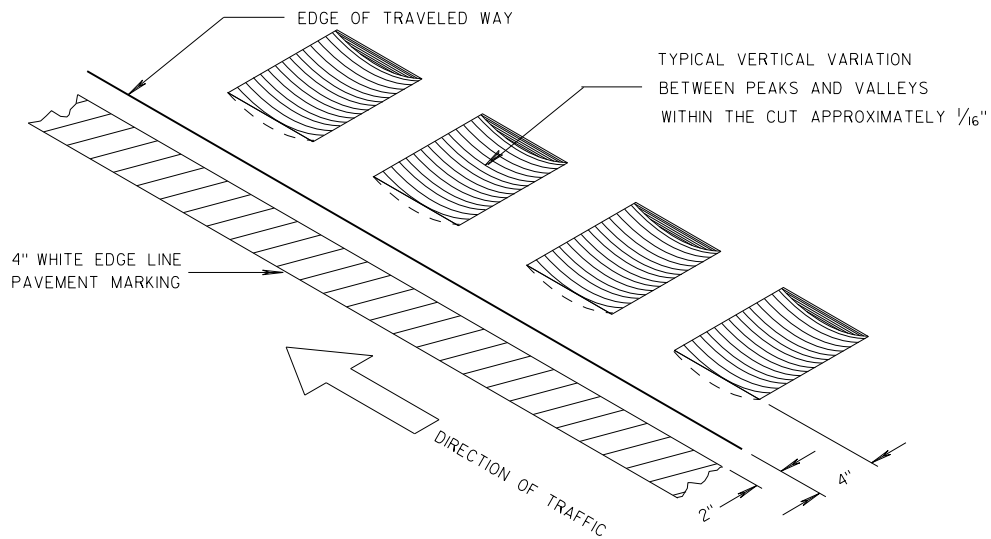
TYPE 1
2-LANE SHOULDER RUMBLE STRIP

GENERAL NOTES

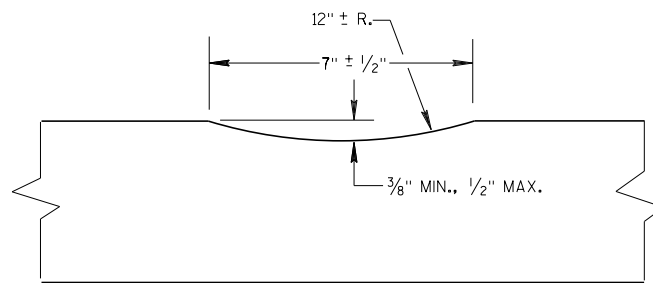
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



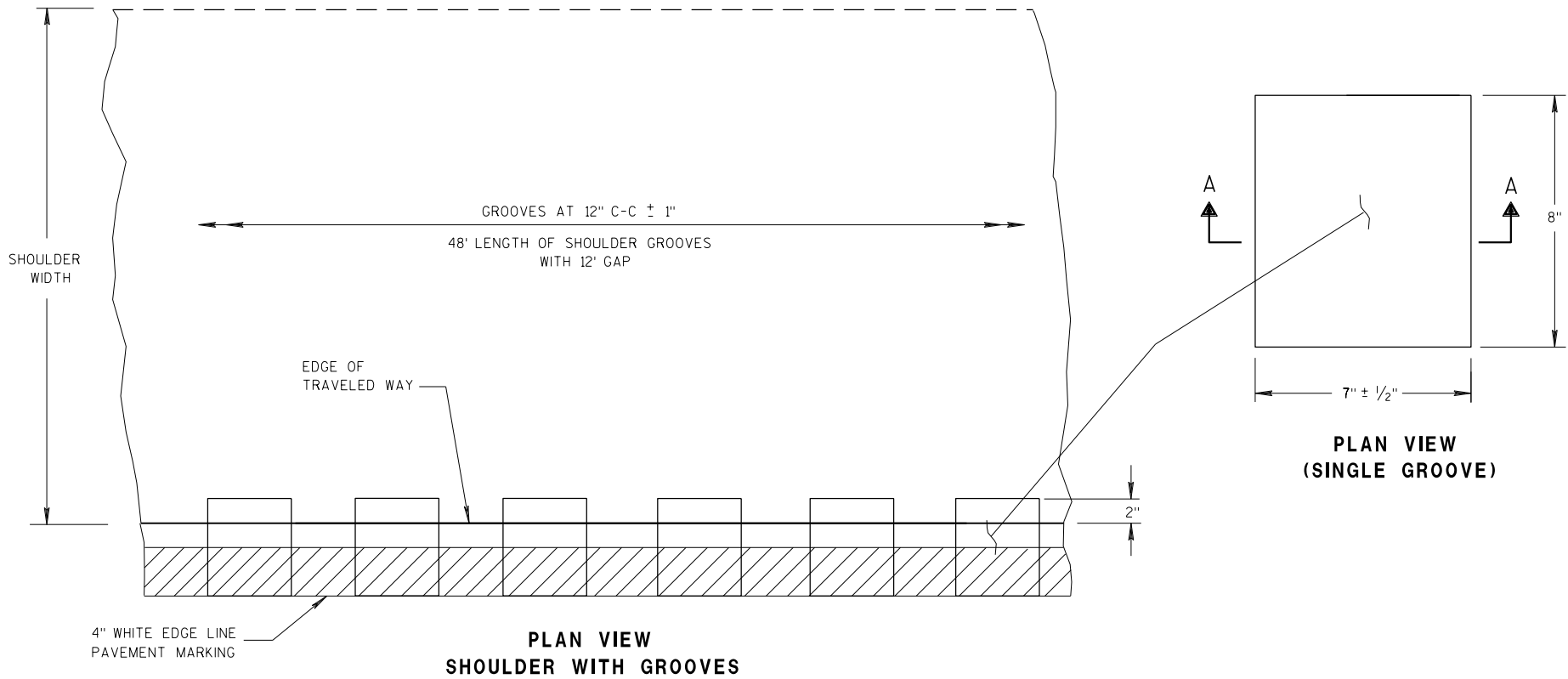
ISOMETRIC



SECTION A-A

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

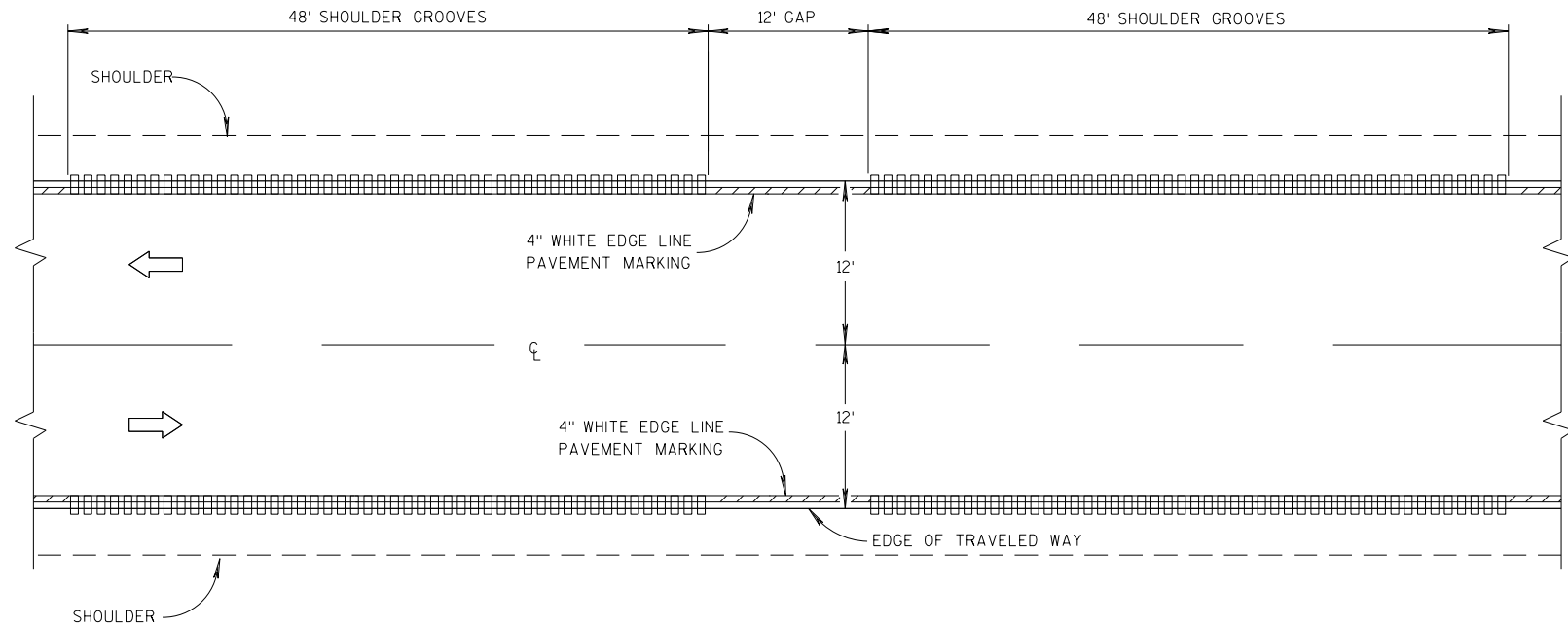
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP



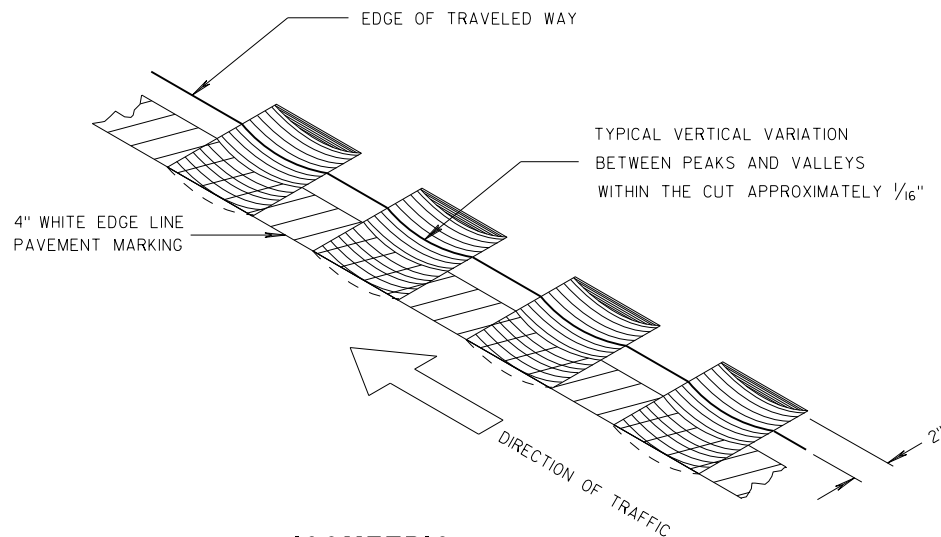
TYPE 2
2-LANE SHOULDER RUMBLE STRIP

GENERAL NOTES

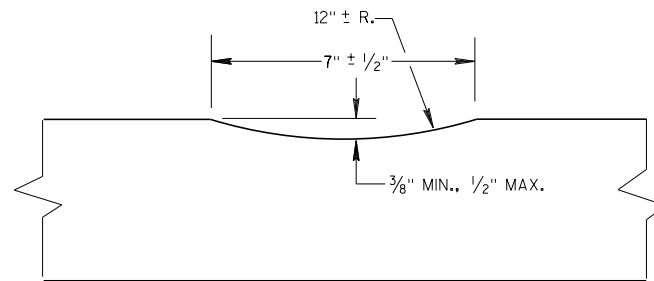
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



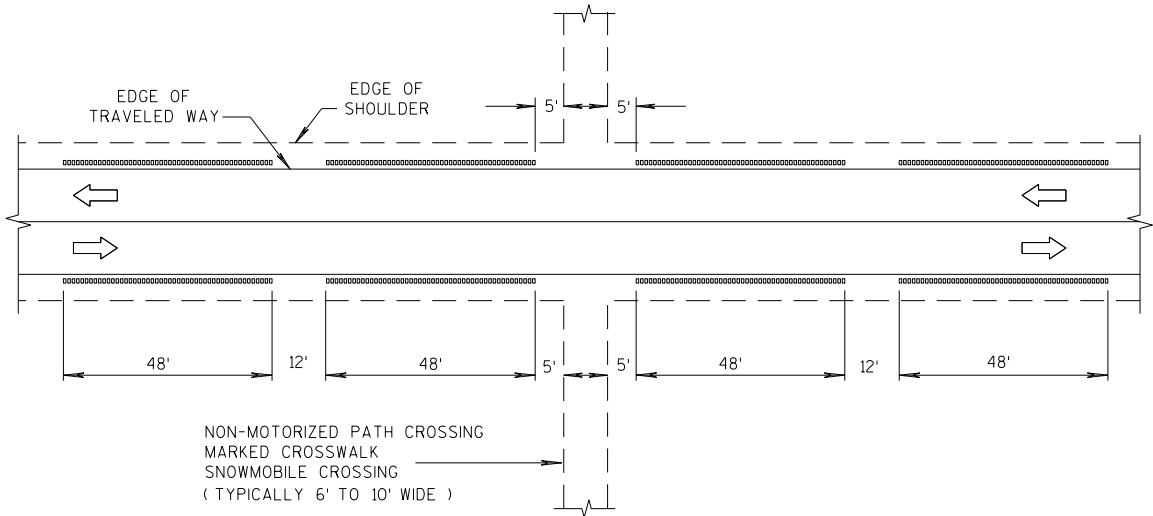
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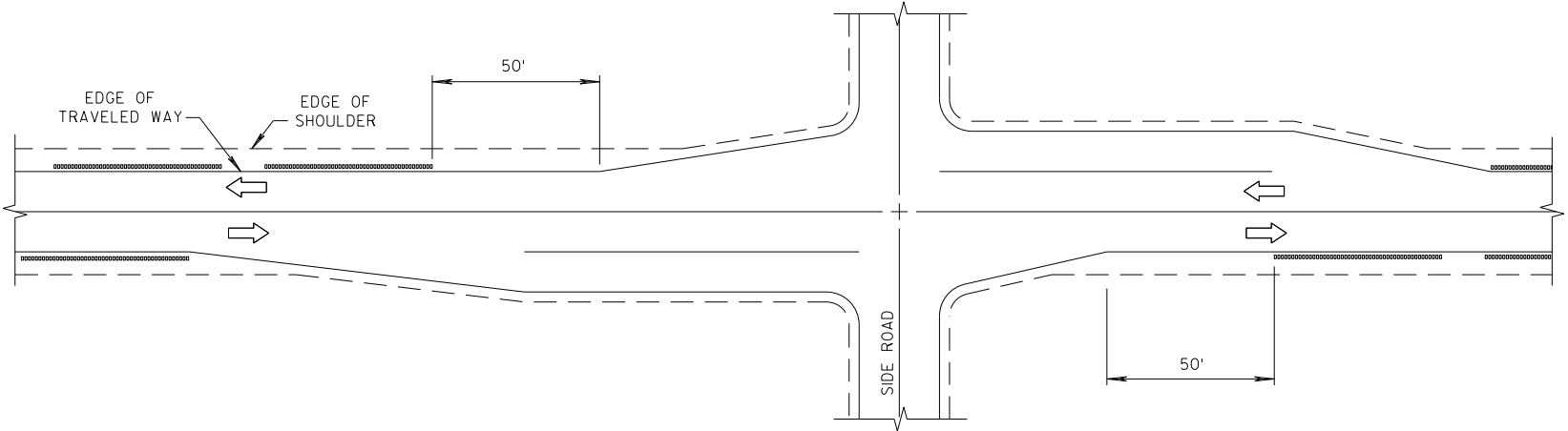
SECTION A-A

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

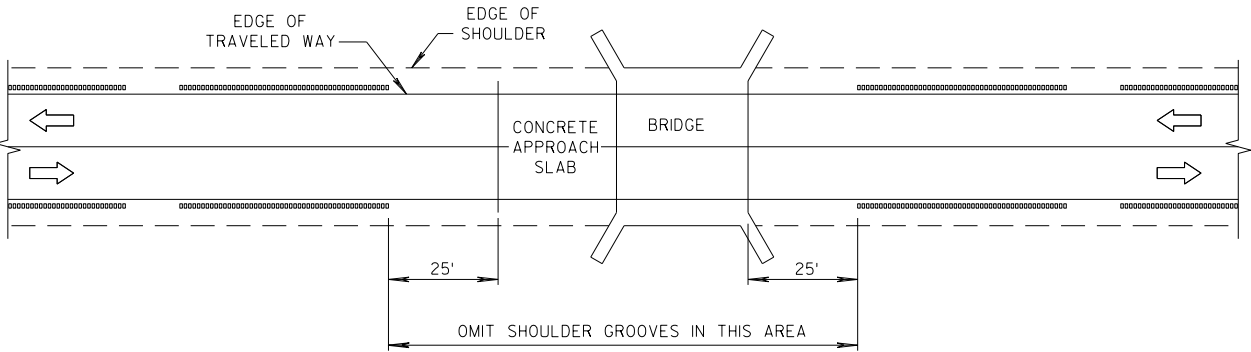
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



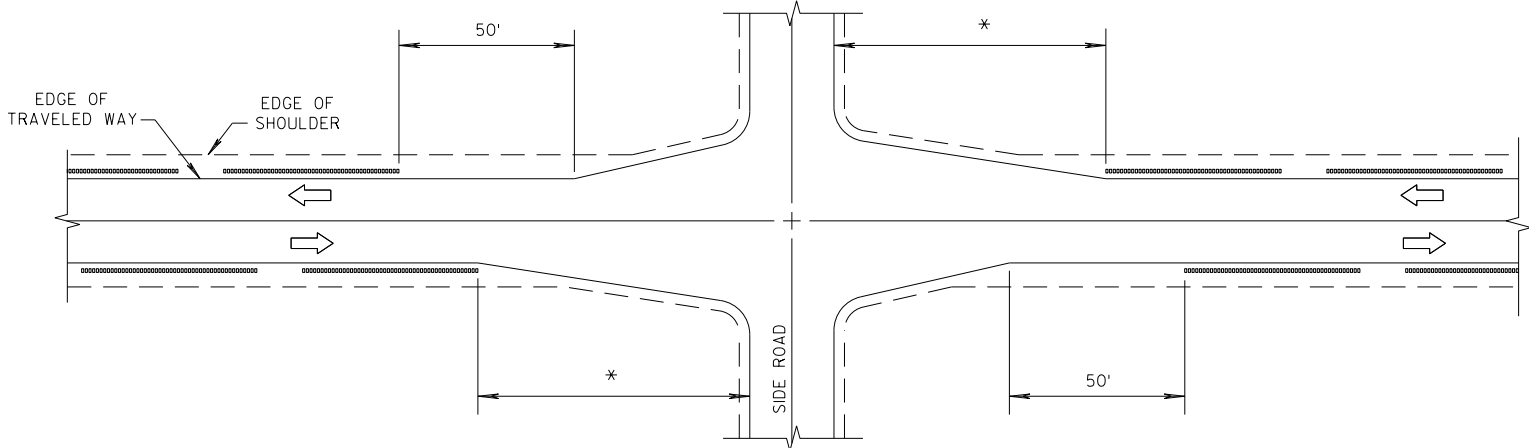
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



SHOULDER GROOVES AT WITH RIGHT TURN LANE

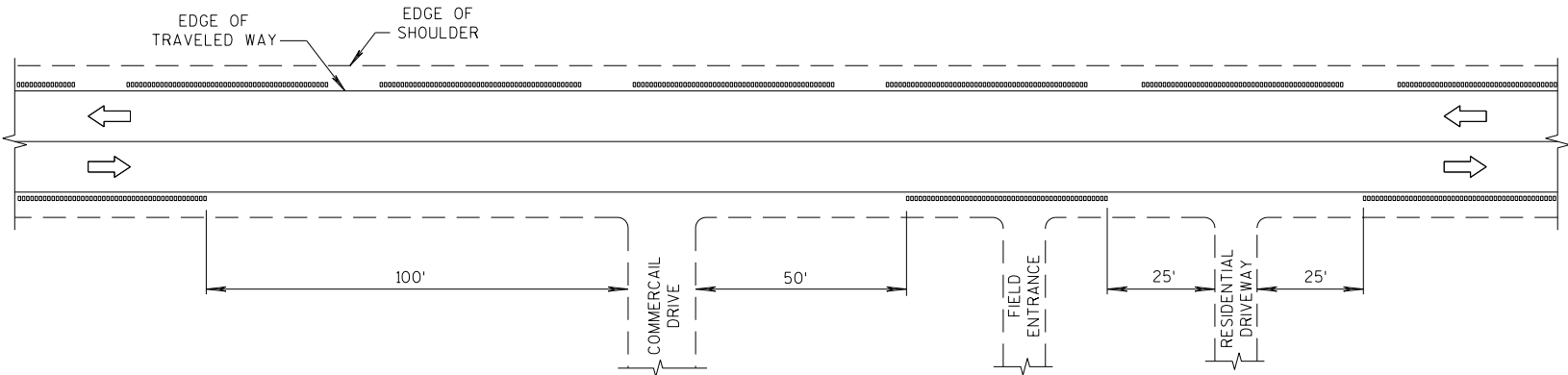


SHOULDER GROOVES AT BRIDGES



SHOULDER GROOVES AT INTERSECTIONS WITH APPROACH TAPER

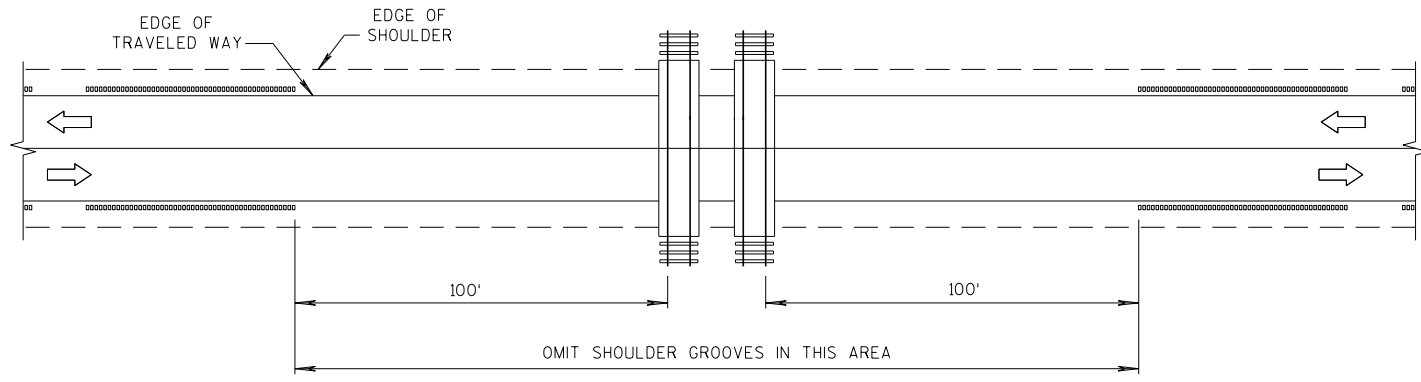
* GREATER OF 100' OR APPROACH TAPER LENGTH



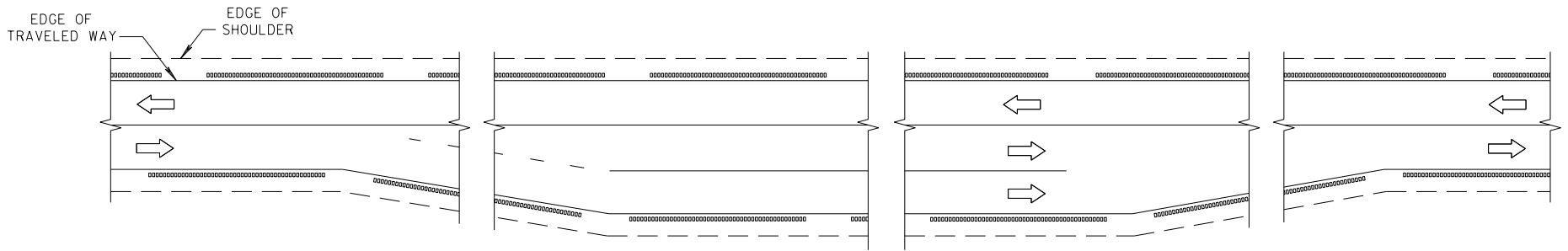
SHOULDER GROOVES AT DRIVEWAYS^①

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

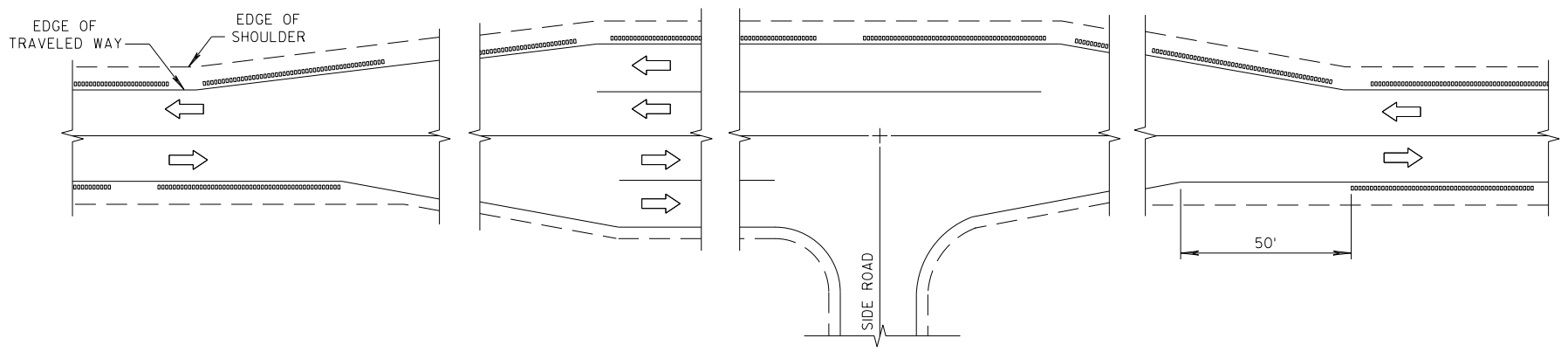
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



SHOULDER GROOVES AT RAILROADS

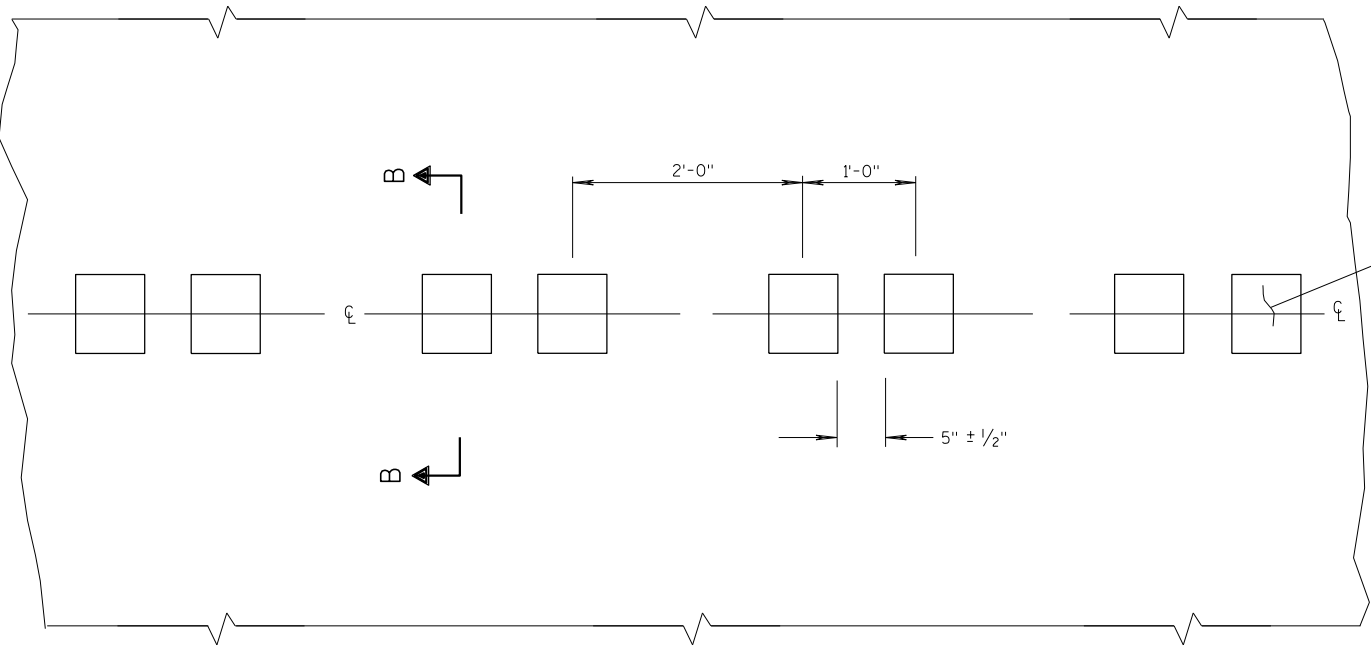


SHOULDER GROOVES AT PASSING AND CLIMBING LANES



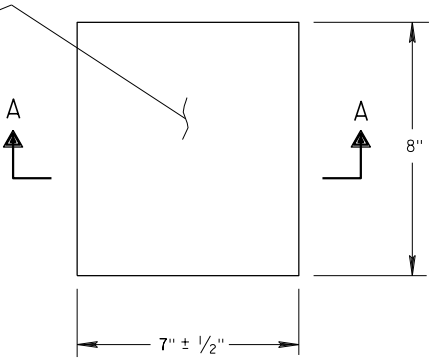
SHOULDER GROOVES AT BYPASS LANES

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/2018 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	



PLAN VIEW
CENTER LINE WITH GROOVES

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP



PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

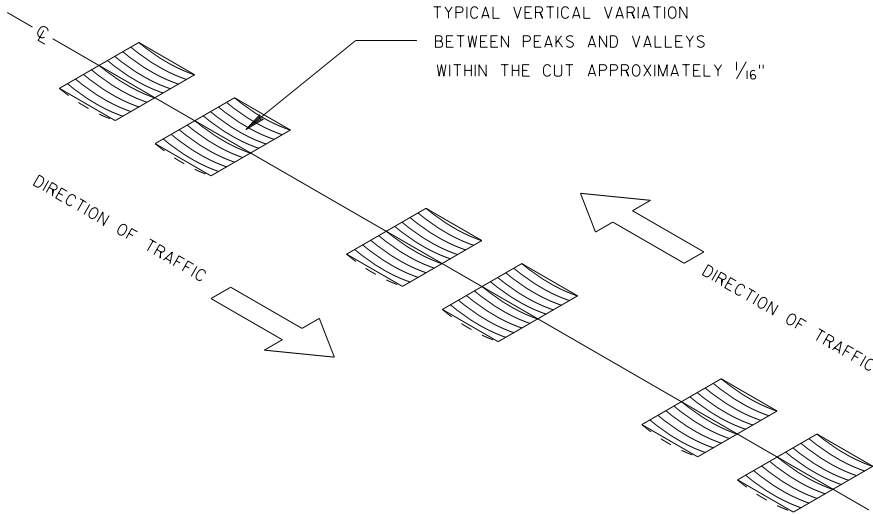
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTER LINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

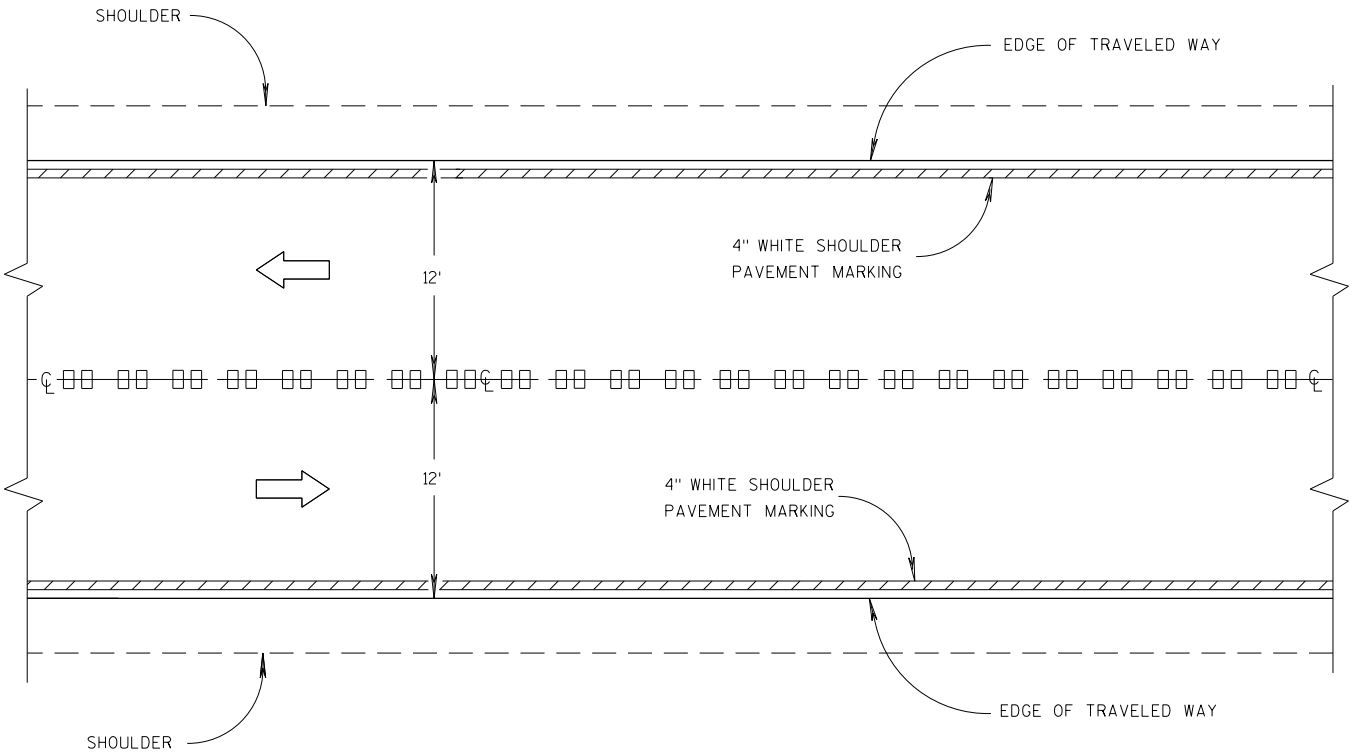
INSTALL PERMANENT MARKING EPOXY 4-INCH AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

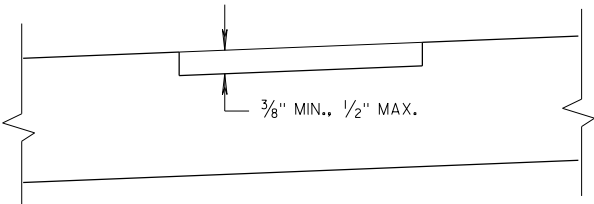
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



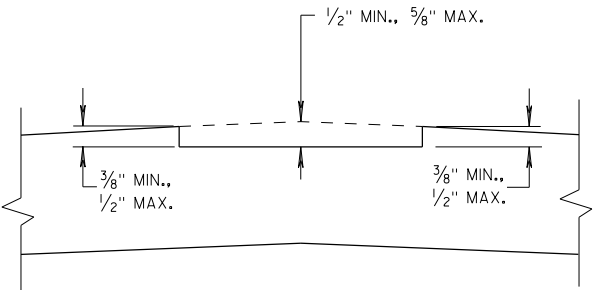
ISOMETRIC



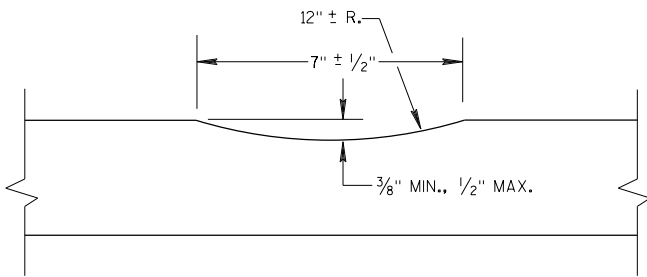
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



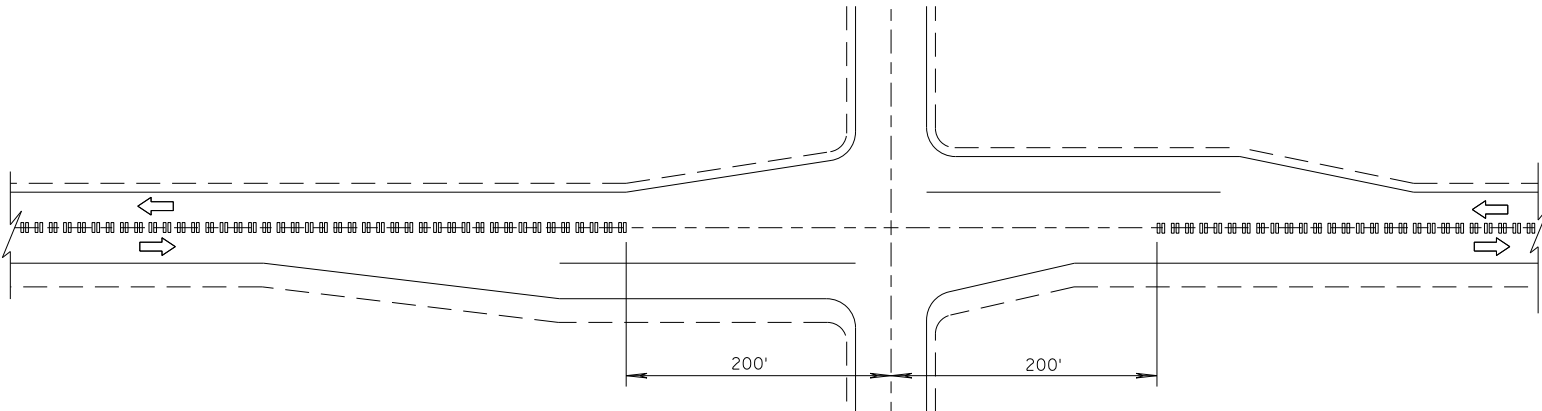
SECTION B-B
CROWNED ROADWAY



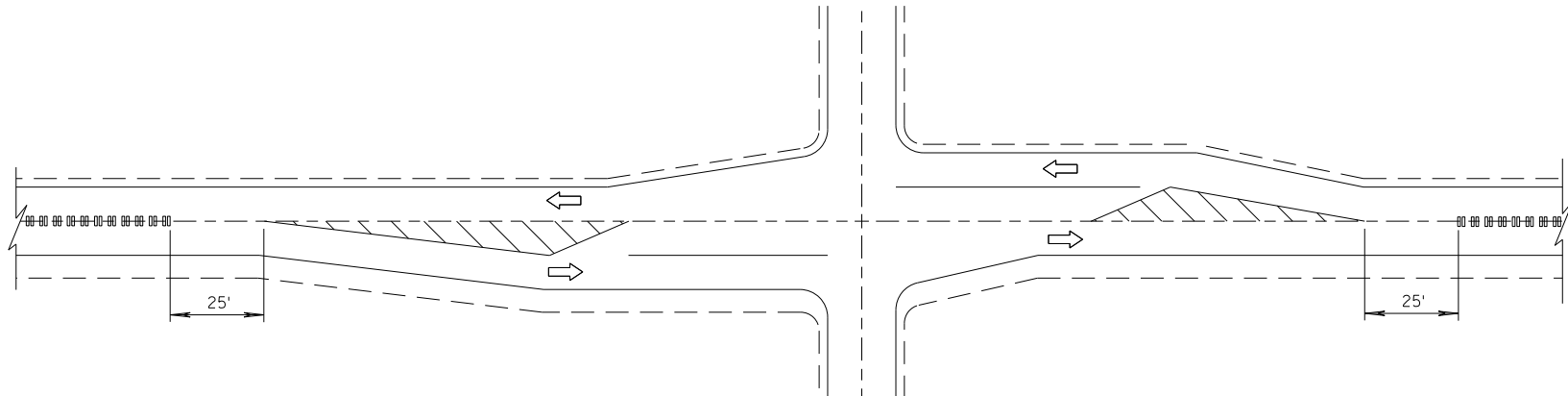
SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

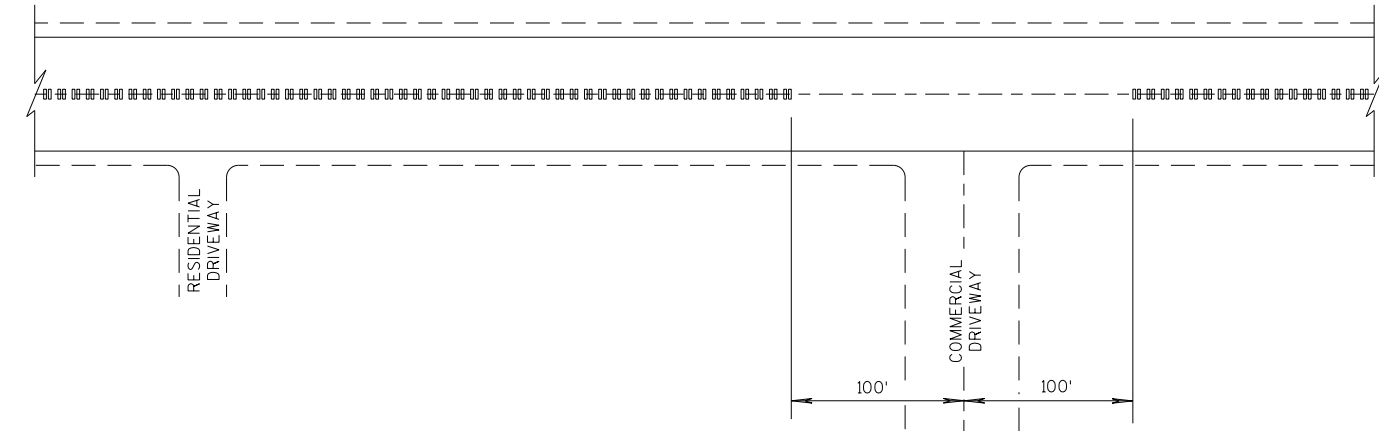
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTER LINE GROOVES AT INTERSECTIONS

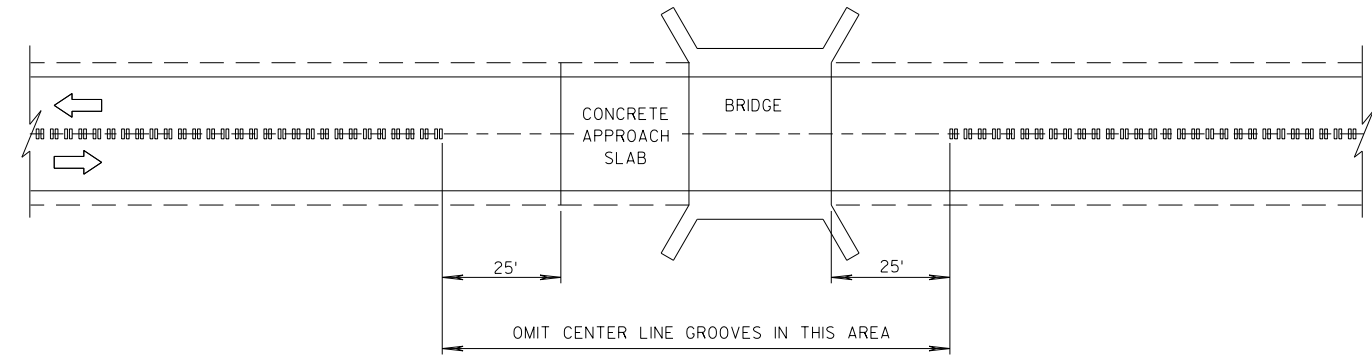


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

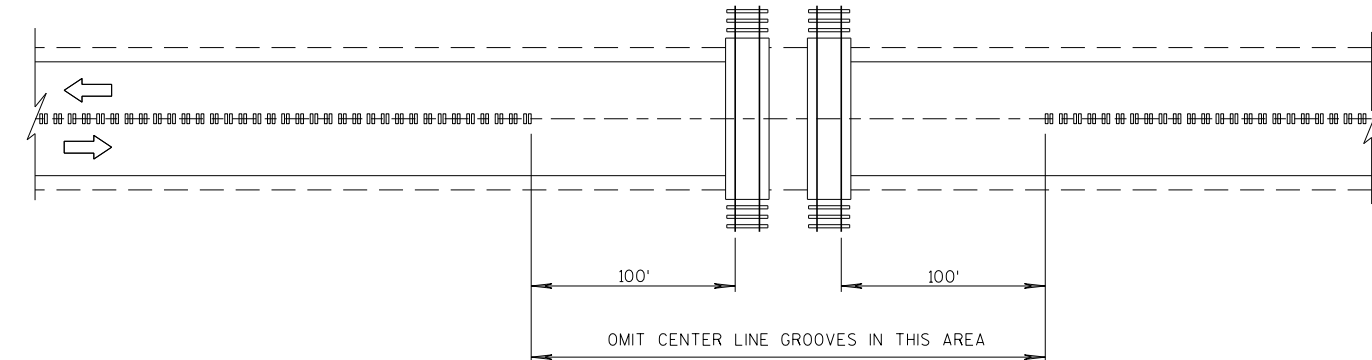


CENTER LINE GROOVES AT DRIVEWAYS¹

¹ CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.

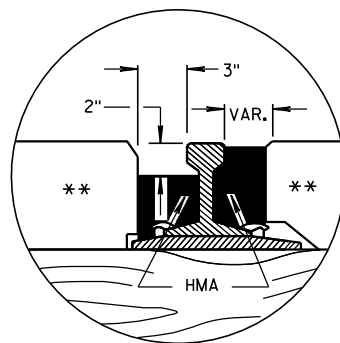
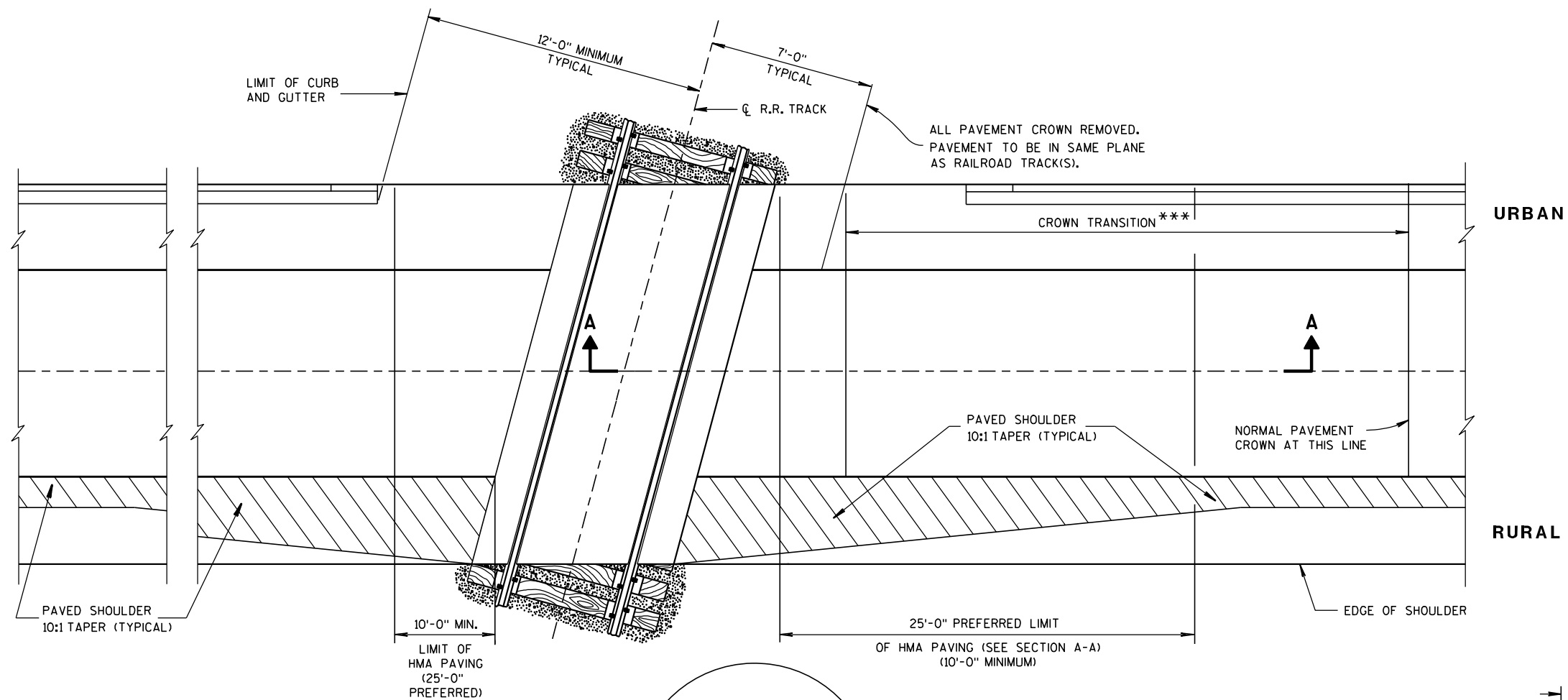


CENTER LINE GROOVES AT BRIDGES

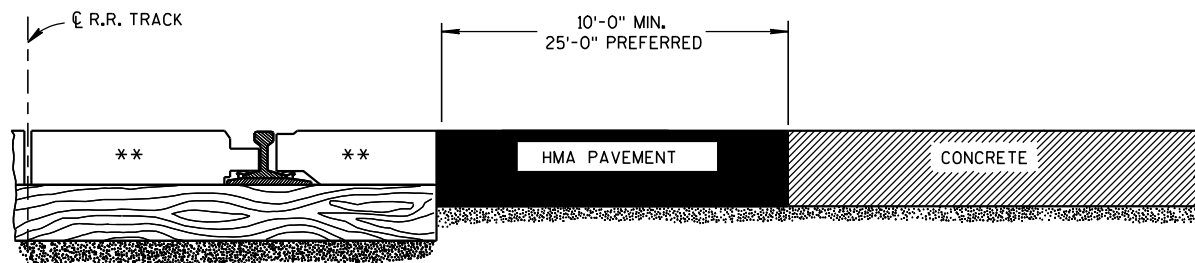


CENTER LINE GROOVES AT RAILROADS

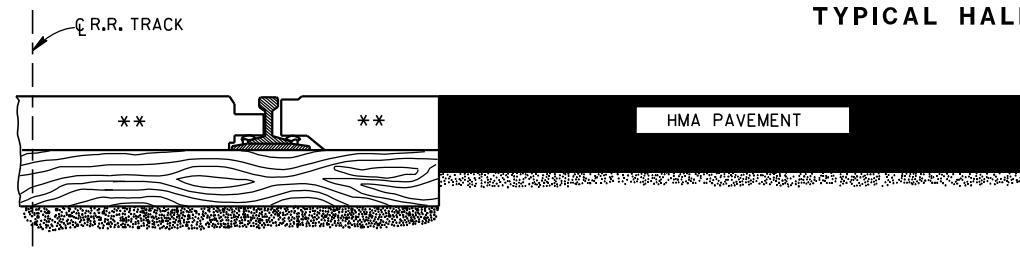
2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/2018 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	



DETAIL B
HMA FLANGEWAY
AND FIELD FILLERS



SECTION A-A
CONCRETE PAVEMENT APPROACH



SECTION A-A
HMA PAVEMENT APPROACH

EXAMPLES OF PAVEMENT APPROACHES

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TIMBER, CONCRETE OR RUBBER CROSSING SURFACE MATERIAL, RAILS, TIES, BALLAST, GEOTEXTILE FABRIC AND CROSSING DRAINAGE SYSTEM BY OTHERS UNLESS OTHERWISE PROVIDED.

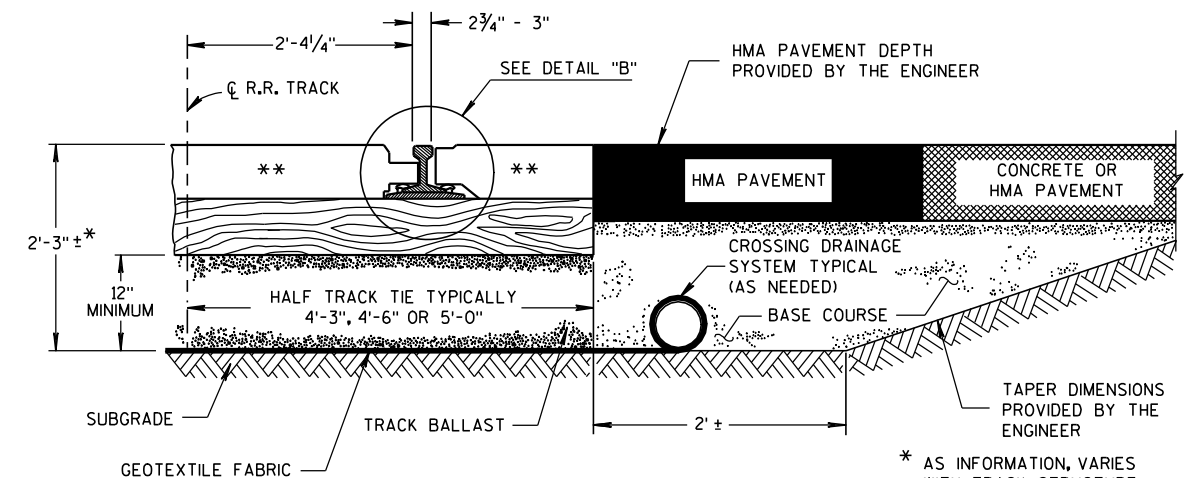
HMA PAVEMENT APPROACHES AND HMA PAVEMENT CROSSING SURFACES TO BE PLACED BY CONTRACTOR UNLESS OTHERWISE PROVIDED.

HMA FLANGEWAY AND FIELD FILLERS TO BE PLACED AND THOROUGHLY HAND COMPACTED BY THE CONTRACTOR WHEN NOT PROVIDED BY OTHERS. SEE DETAIL B. HMA FILLERS NOT REQUIRED WHEN RUBBER FILLERS ARE PROVIDED.

HMA PAVEMENT SHALL BE ROLLED PARALLEL TO THE TRACK.

** CROSSING SURFACE MAY BE TIMBER, RUBBER, CONCRETE, HMA PAVEMENT OR A COMBINATION OF SUCH MATERIALS.

*** CROWN TRANSITION LENGTH SHOWN ELSEWHERE IN THE PLAN.



TYPICAL HALF SECTION

PAVEMENT DETAILS
FOR RAILROAD APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

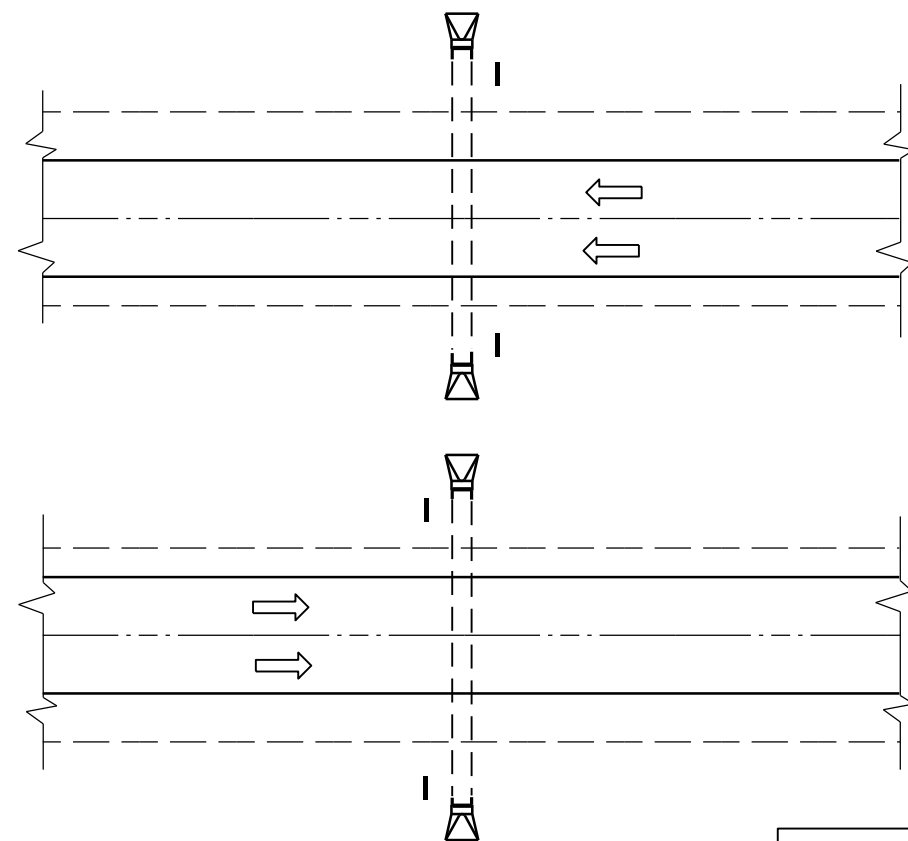
APPROVED

8-28-09

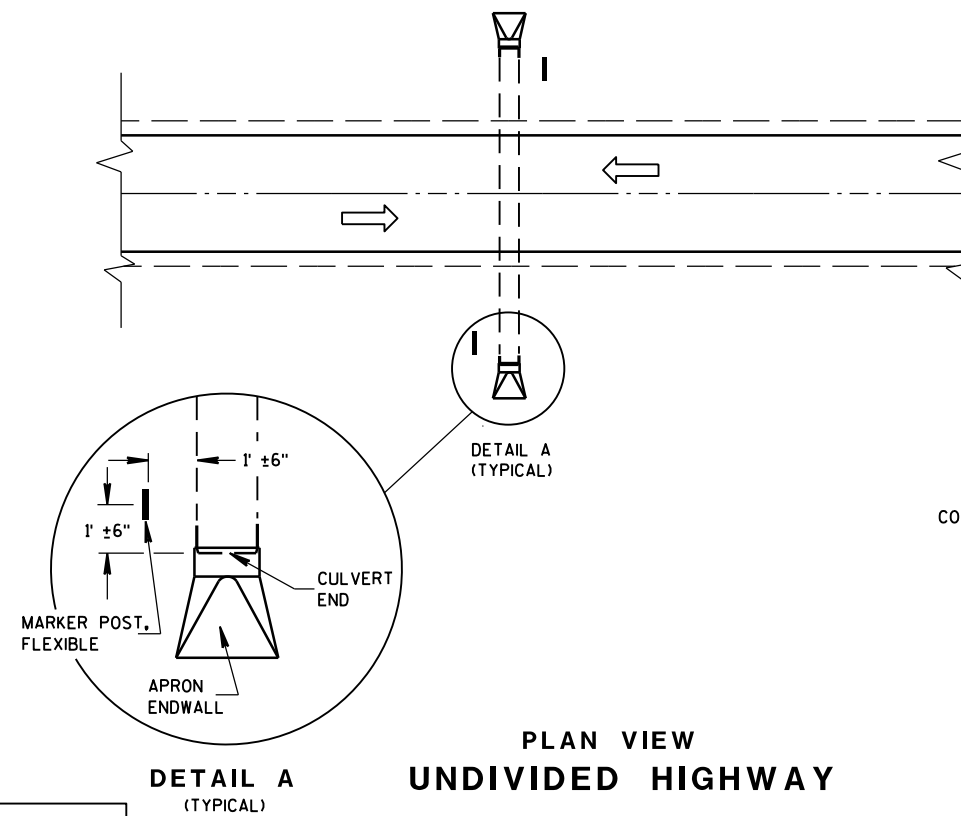
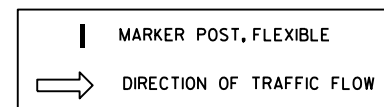
DATE

FHWA

/S/ Ronald E. Adams
CHIEF, RAILROADS & HARBORS SECTION



PLAN VIEW
DIVIDED HIGHWAY

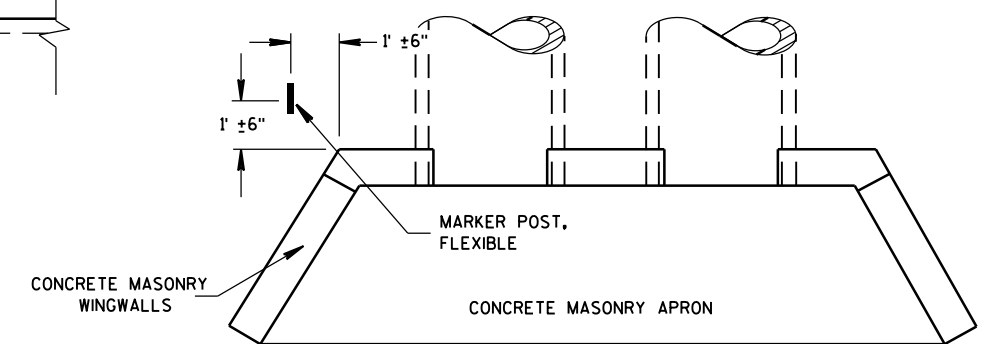


PLAN VIEW
UNDIVIDED HIGHWAY

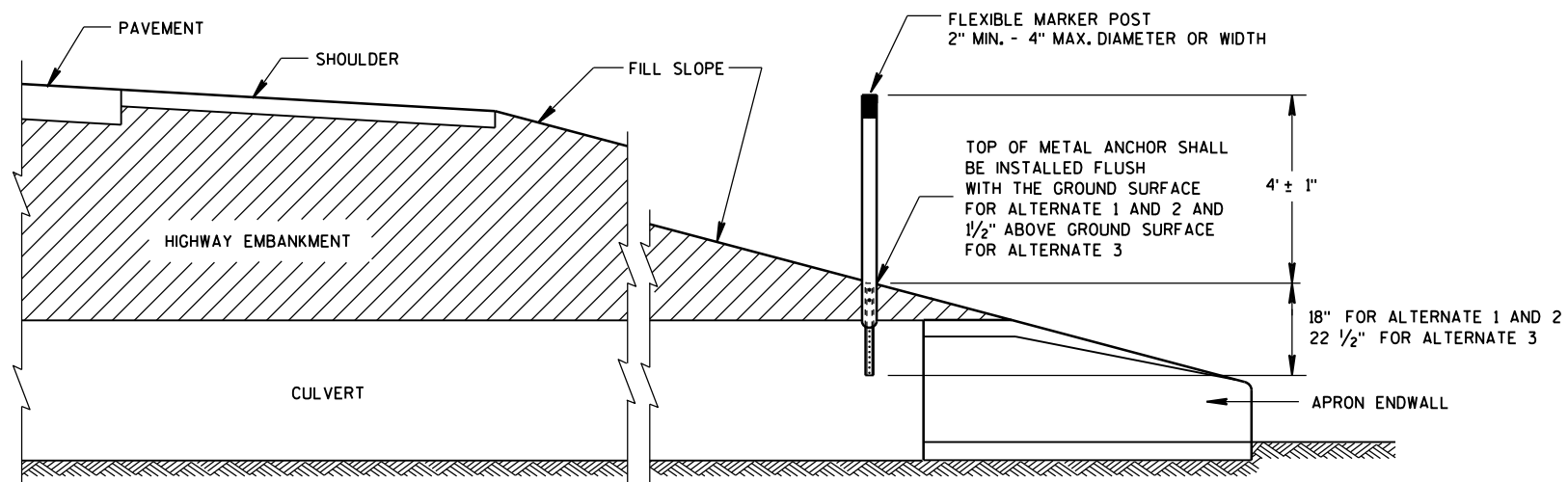
FLEXIBLE MARKER POST LOCATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



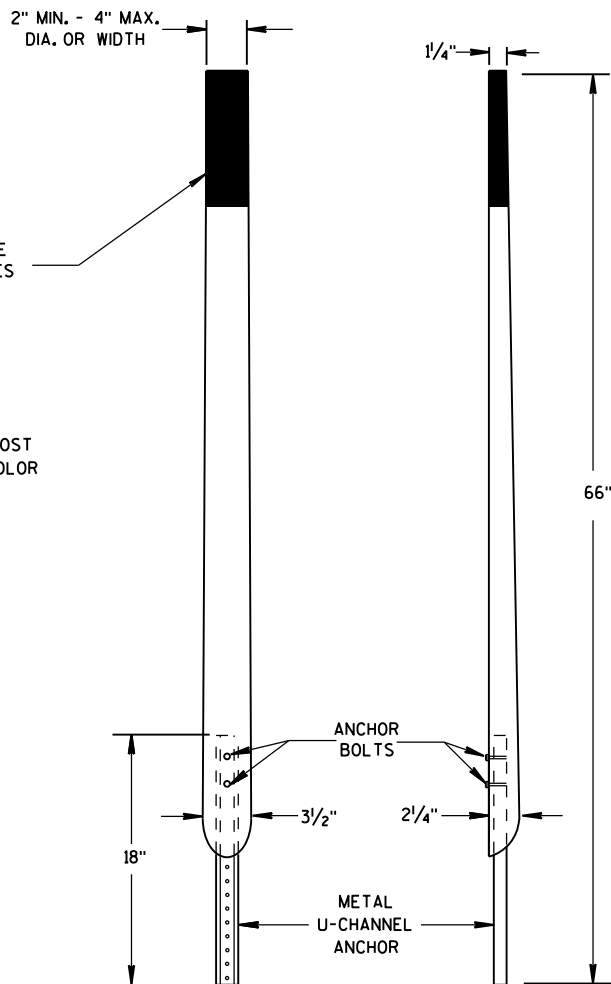
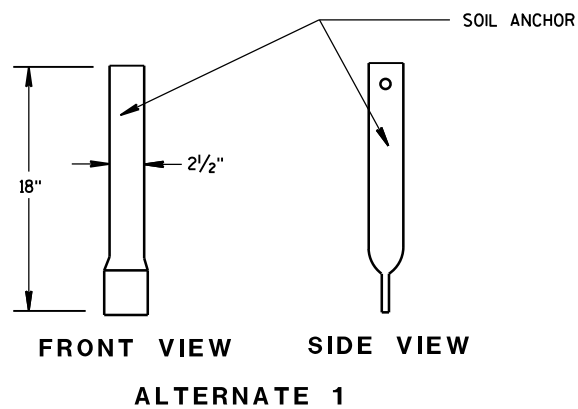
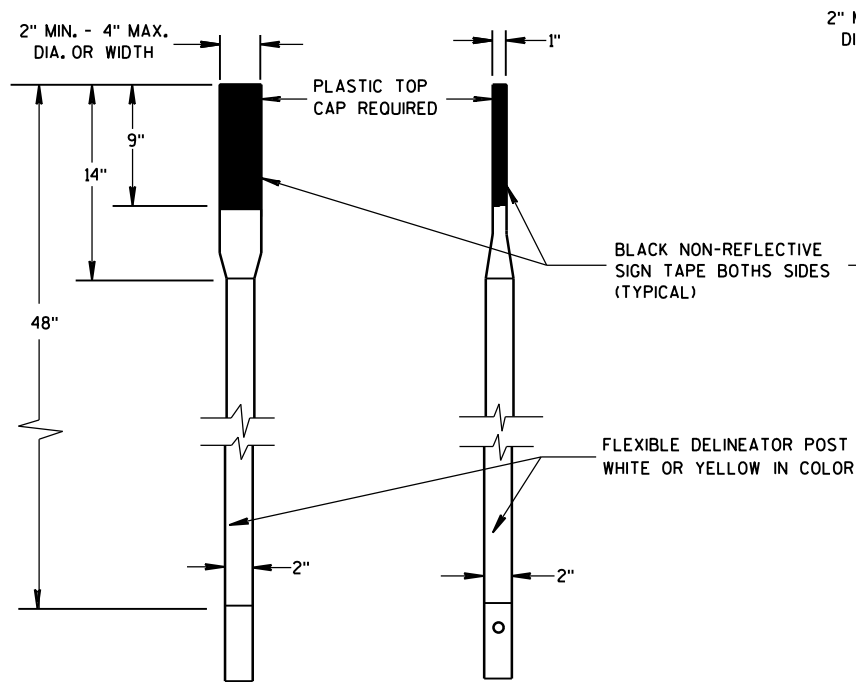
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



CROSS SECTION
FLEXIBLE MARKER POST

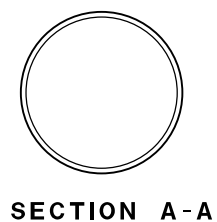
FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

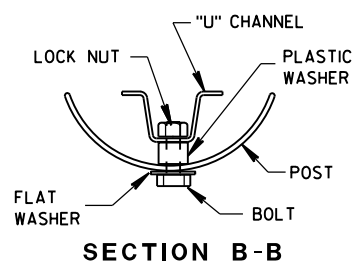
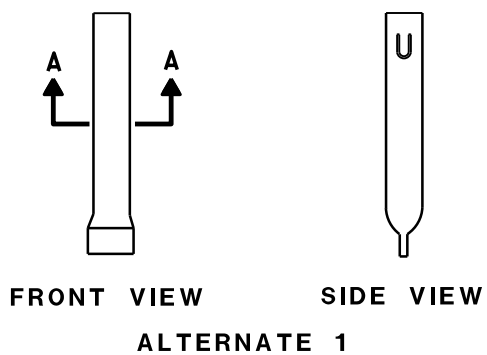


FRONT VIEW SIDE VIEW
ALTERNATE 2

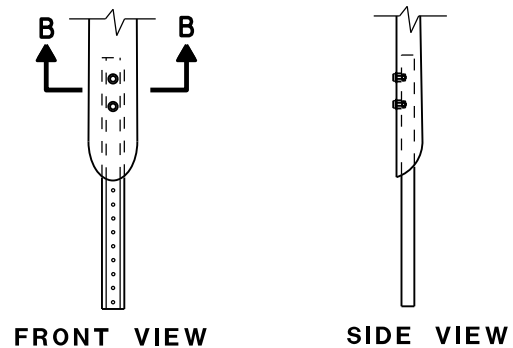
FLEXIBLE MARKER POSTS



SECTION A-A

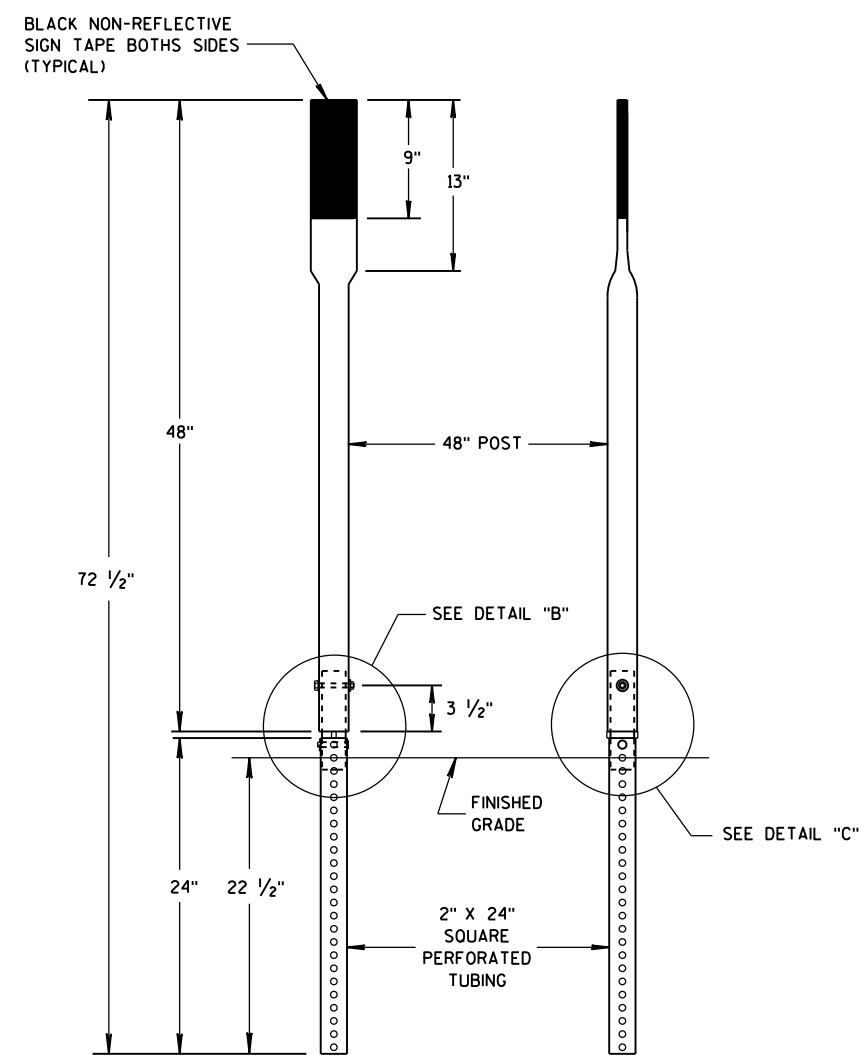


SECTION B-B

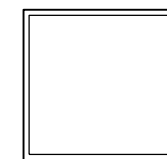


FRONT VIEW SIDE VIEW
ALTERNATE 2

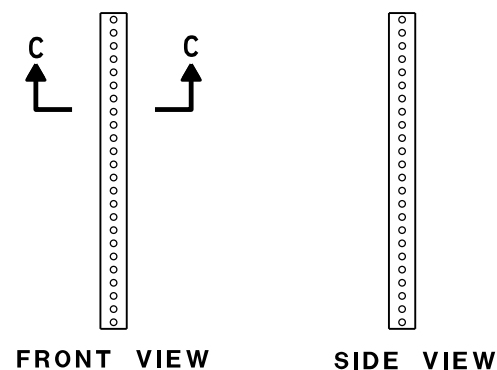
FLEXIBLE MARKER POST ANCHORS



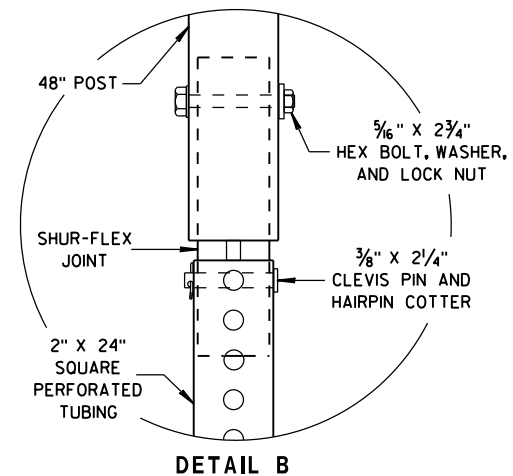
FRONT VIEW SIDE VIEW
ALTERNATE 3



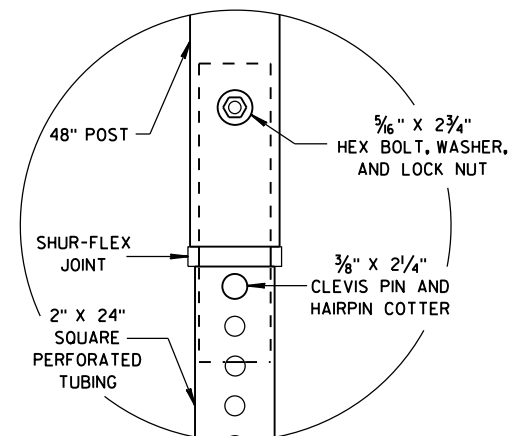
SECTION C-C



FRONT VIEW SIDE VIEW
ALTERNATE 3



DETAIL B



DETAIL C

FLEXIBLE MARKER POST FOR CULVERT END

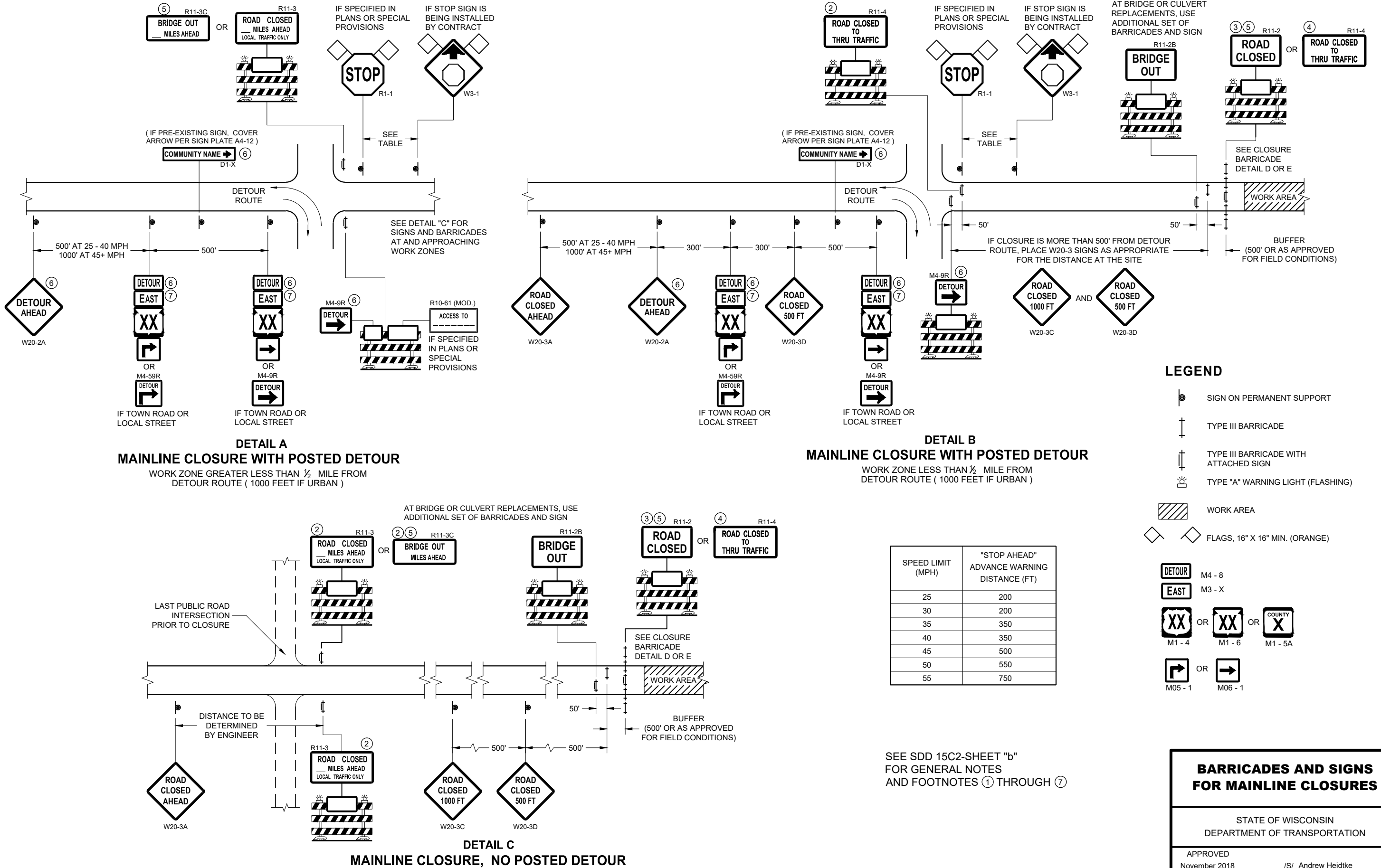
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/1/2012
DATE

FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER OF DESIGN

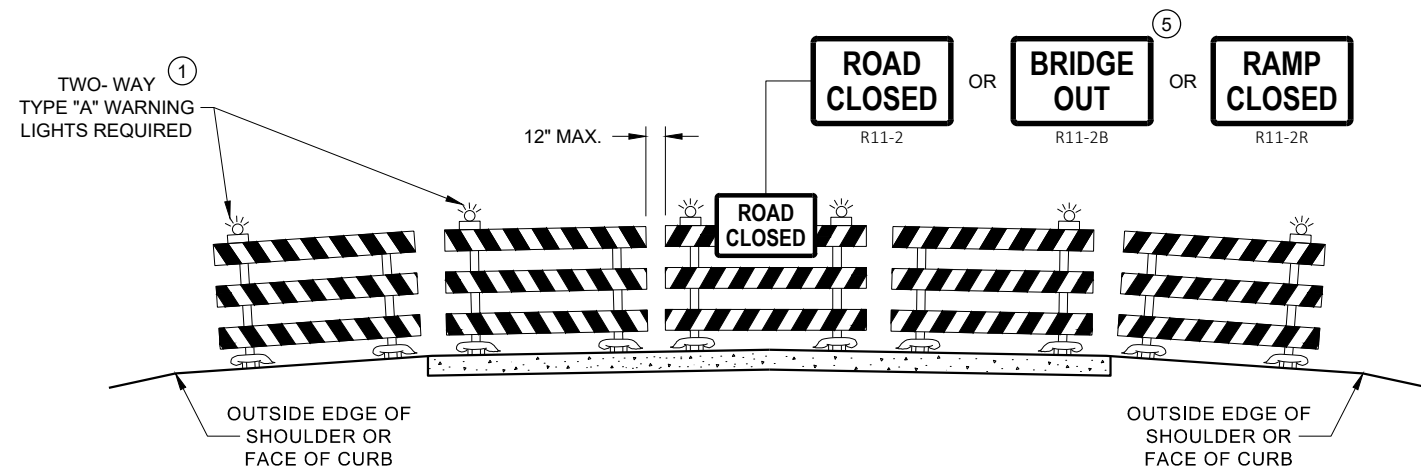


**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

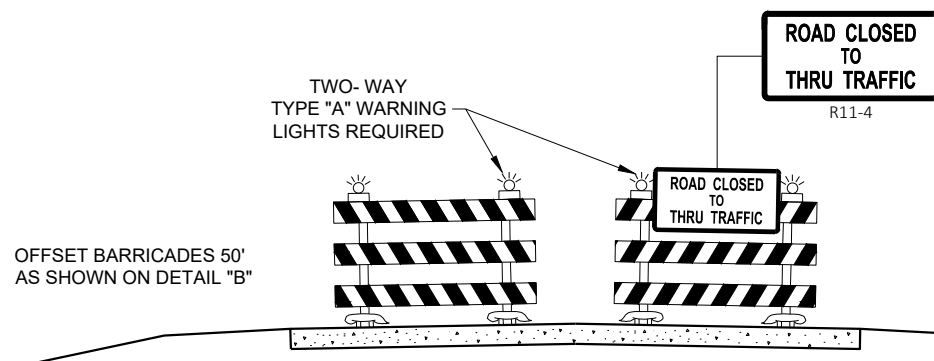
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

"WO" AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 15" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

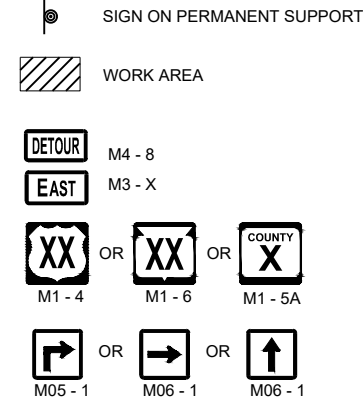
- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- 2 THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- 3 FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- 4 FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- 5 FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- 6 INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- 7 "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



WORK AREA

DETOUR M4 - 8

EAST M3 - X



XX

COUNTY
X



M05 -

 M06 -

R  M06 -

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)

M4-8 SHALL BE 24" X 12" (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS)

M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)

M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)

M4-9 AND M4-59 SHALL BE 30" X 24"

M4-8a SHALL BE 24" X 18"

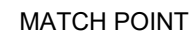
G20-51 SHALL BE 60" X 24"

W20-2 SHALL BE 48" X 48"

D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

**** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M-49 SIGN AS SPECIFIED IN THE CONTRACT.**



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

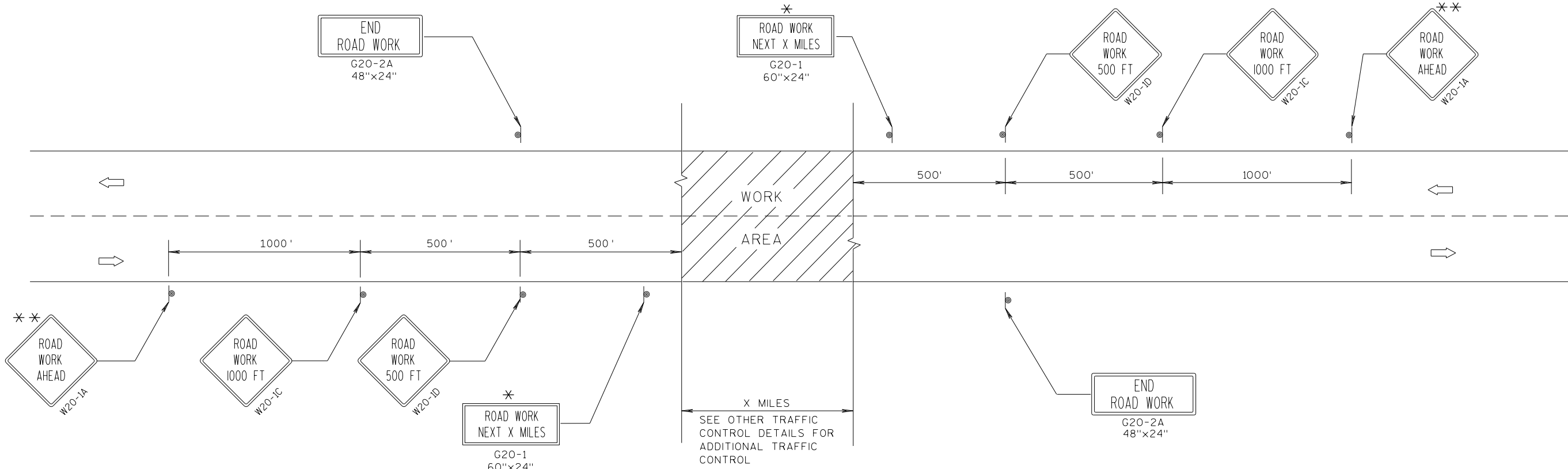
6

6

SEE SPECIFIC PROJECT DETOUR
SIGNING DETAIL SHEETS AND
DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

SDD 15C02 - 07c

SDD15C02 - 07c



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

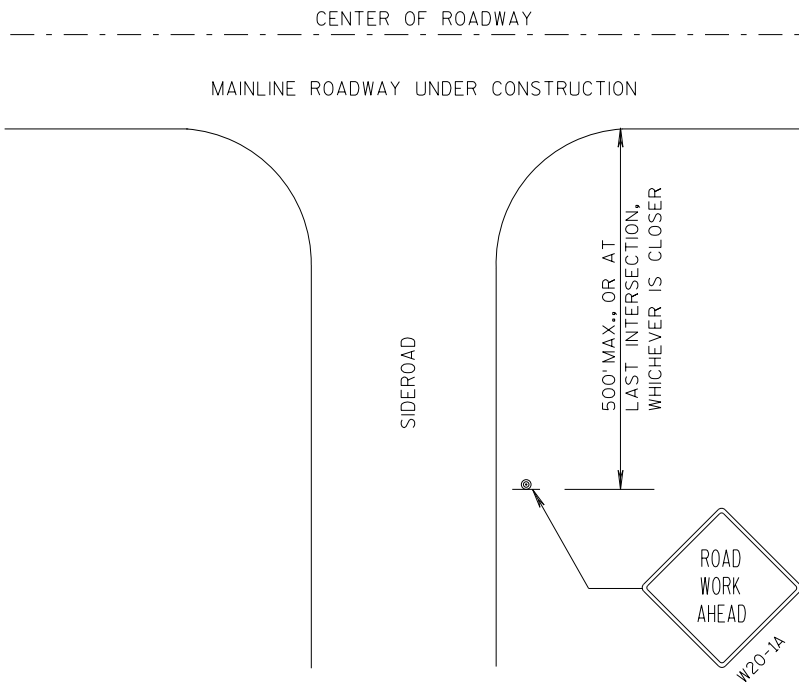
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

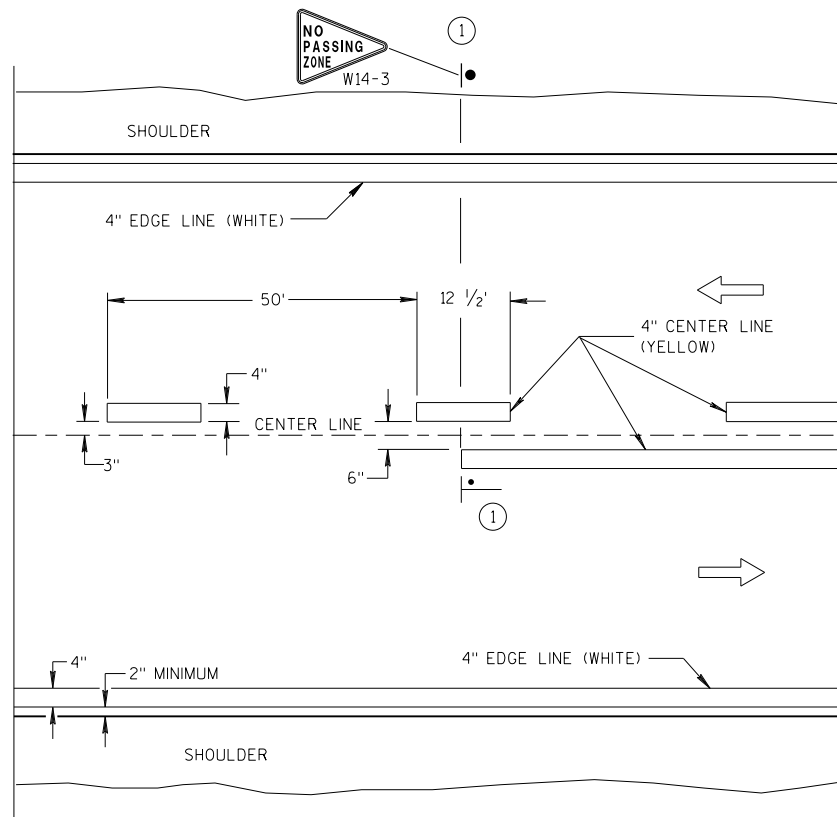
* * PLACE ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



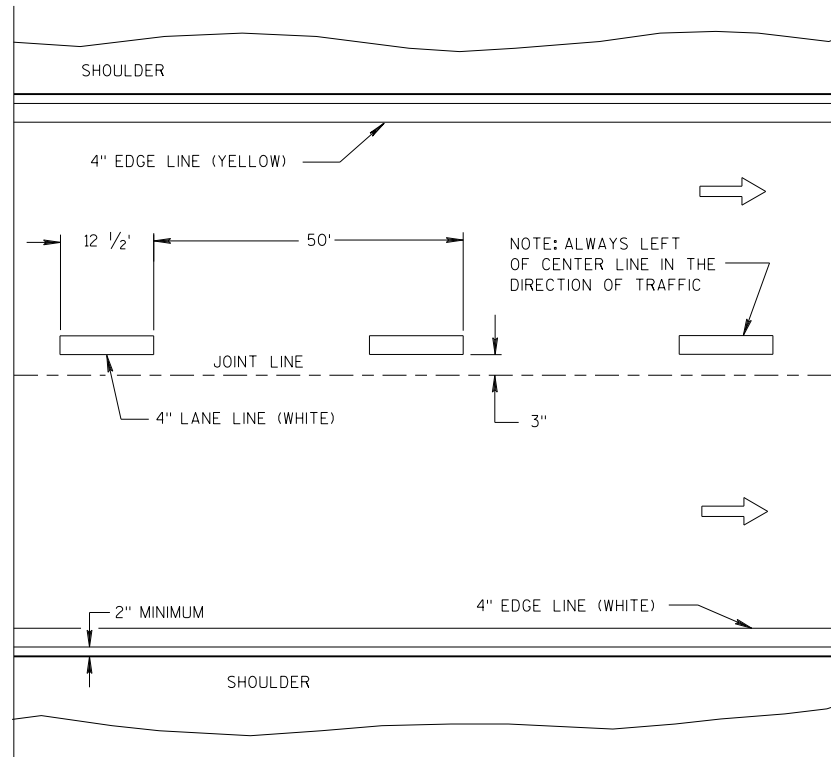
LEGEND

- ⊙ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ▨ WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/2018 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

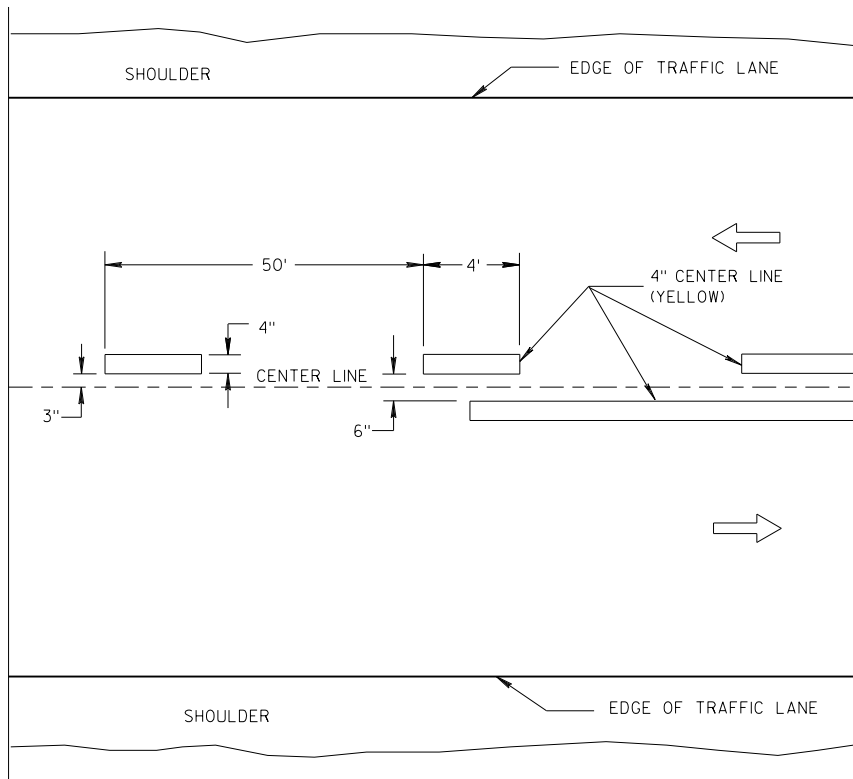


TWO WAY TRAFFIC

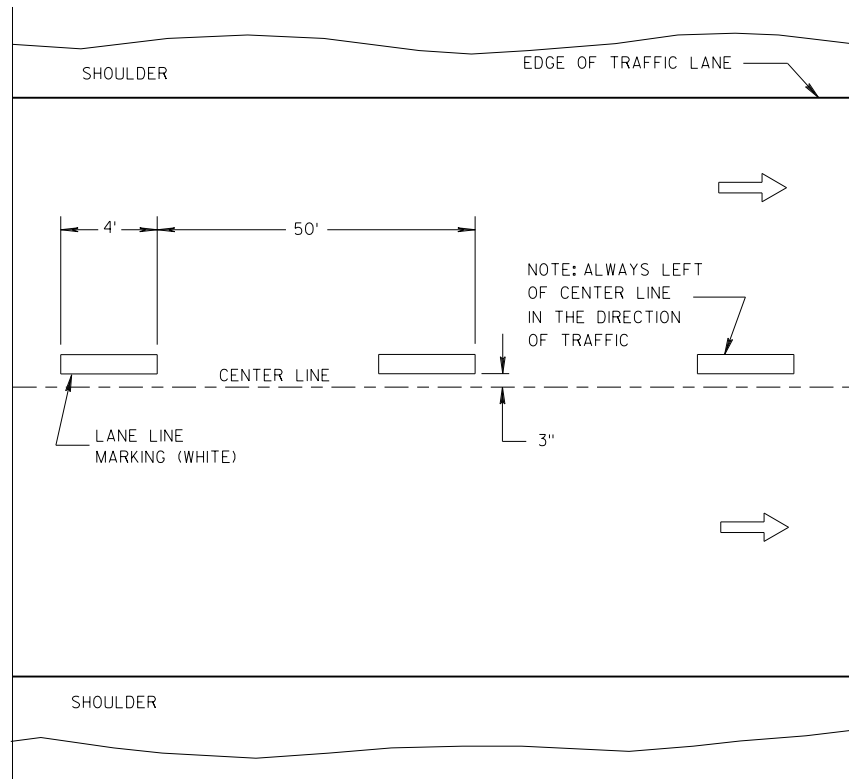


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

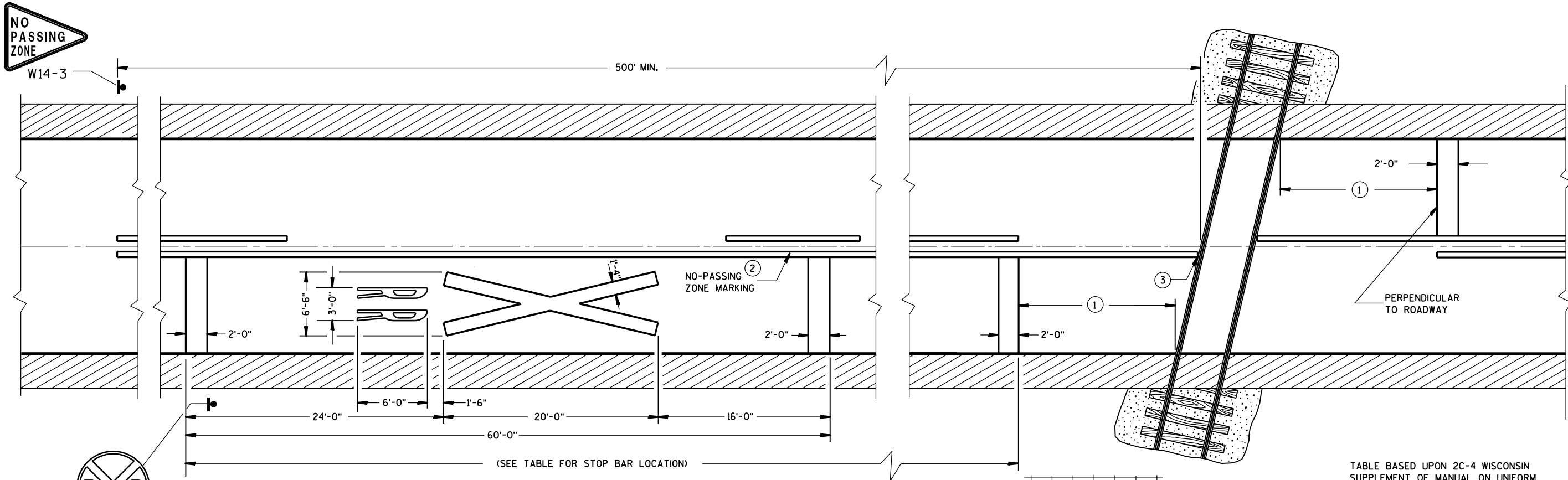
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

LONGITUDINAL MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA



PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

RETRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

- ① MINIMUM 8' FROM ANY RAILROAD WARNING DEVICES (SIGNALS, GATES, ETC.) OR 25' FROM THE NEAREST RAIL, WHICHEVER DISTANCE IS GREATER.
- ② 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.
- ③ FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

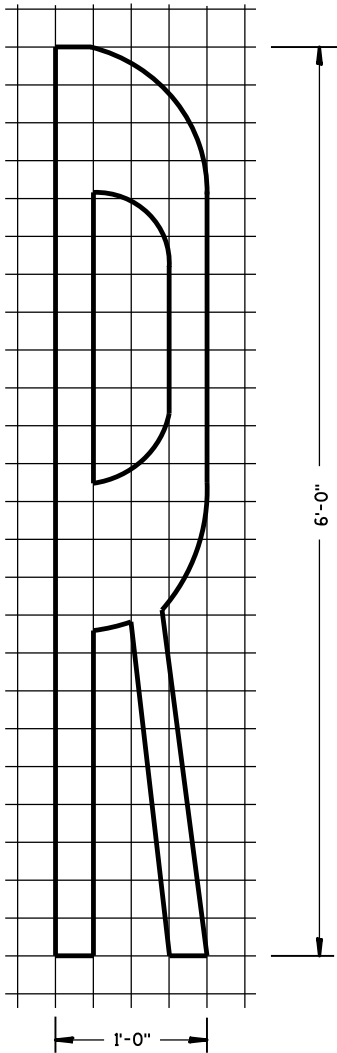


TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

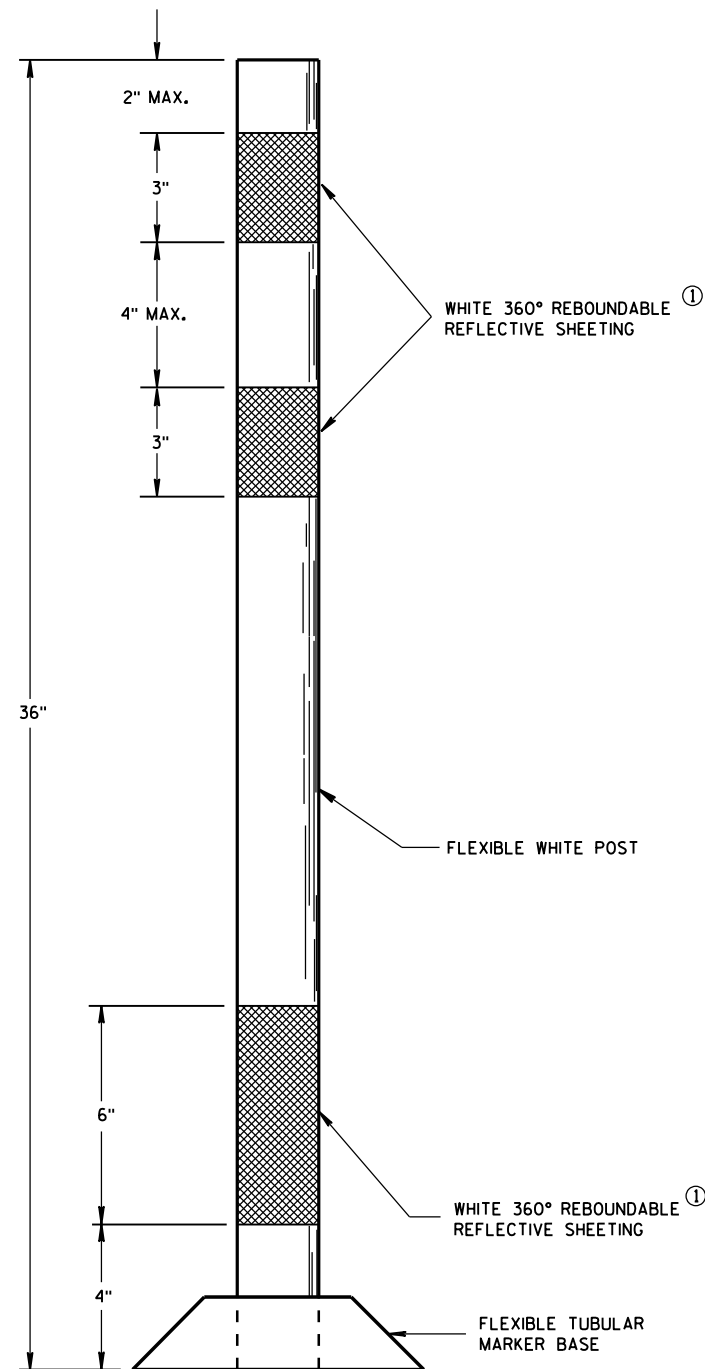
Posted Speed (M.P.H.)	Dimension Range (Feet)
25	150*- 250
30	200*- 300
35	250*- 450
40	300*- 500
45	400*- 650
50	550*- 800
55	750*- 1000
60	1000*- 1250
65	1000*- 1250

* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSE PROXIMITY OF DRIVEWAYS, BRIDGES, SIDEROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.

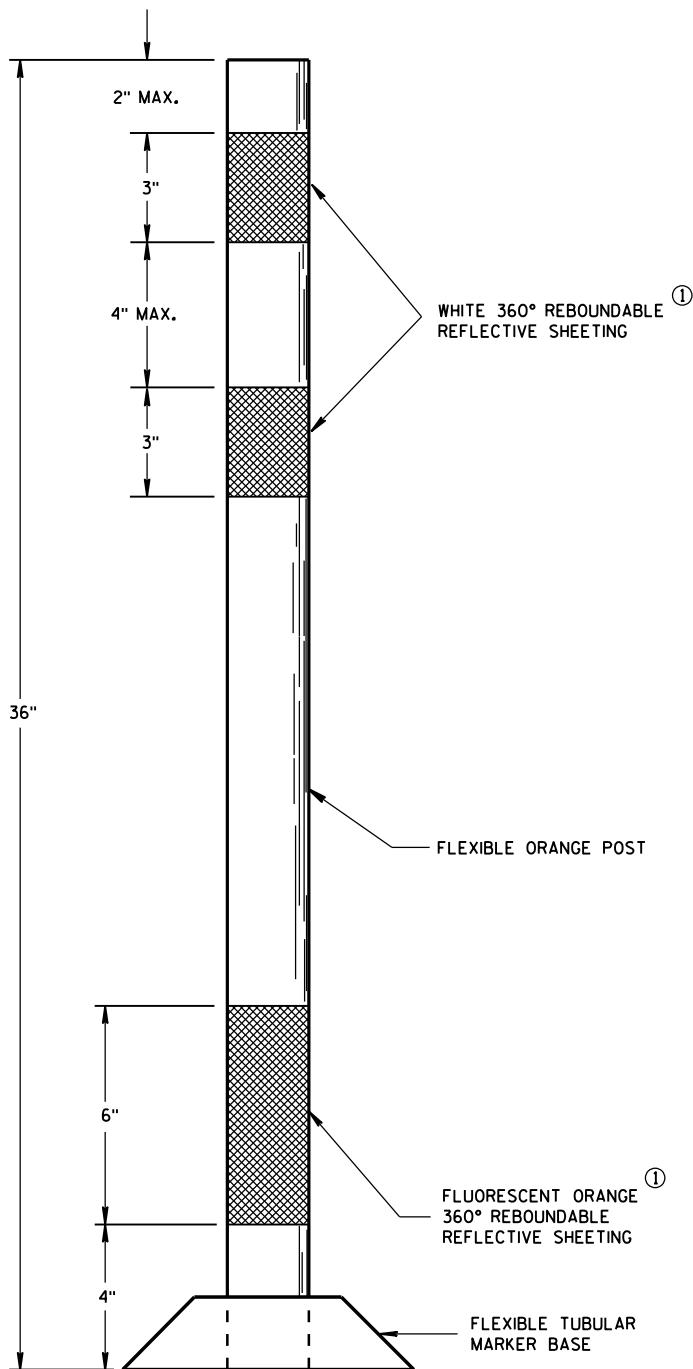
SIGNING AND PAVEMENT MARKING
DETAILS FOR RAILROAD-HIGHWAY
GRADE CROSSINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2017 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA



**FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER**



**FLEXIBLE
TUBULAR MARKER POST
WORK ZONE**

GENERAL NOTES

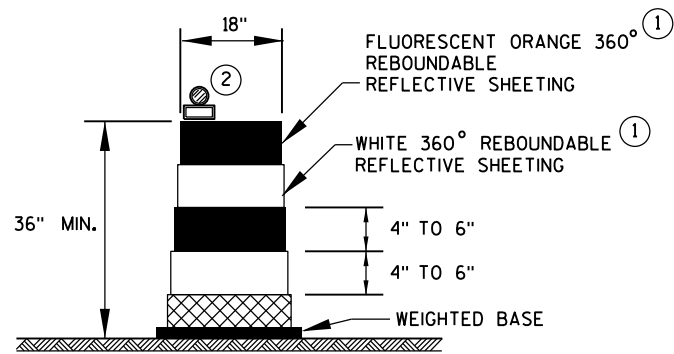
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

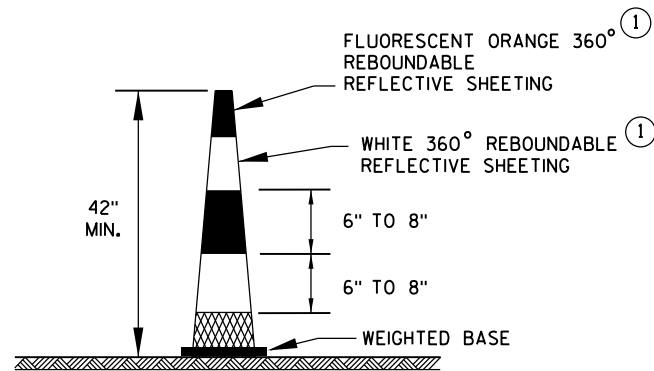
THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heldtke WORK ZONE ENGINEER
FHWA	



DRUM

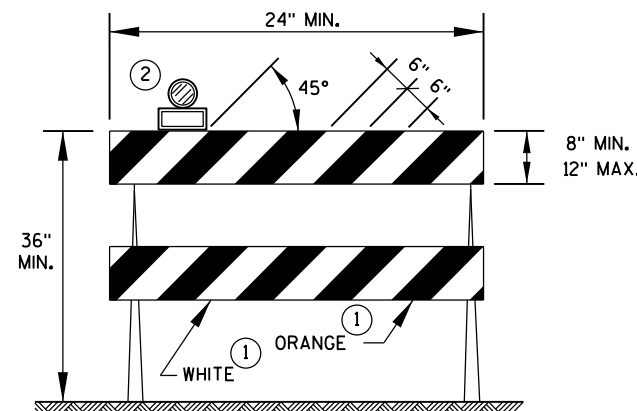


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

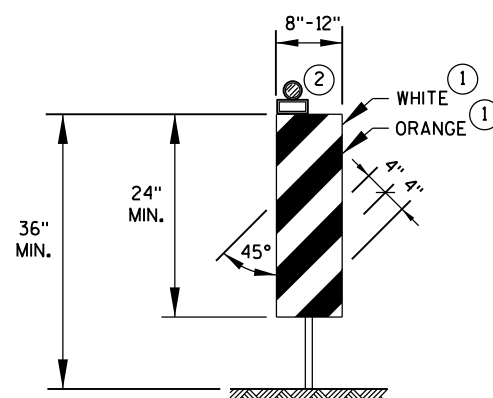
GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



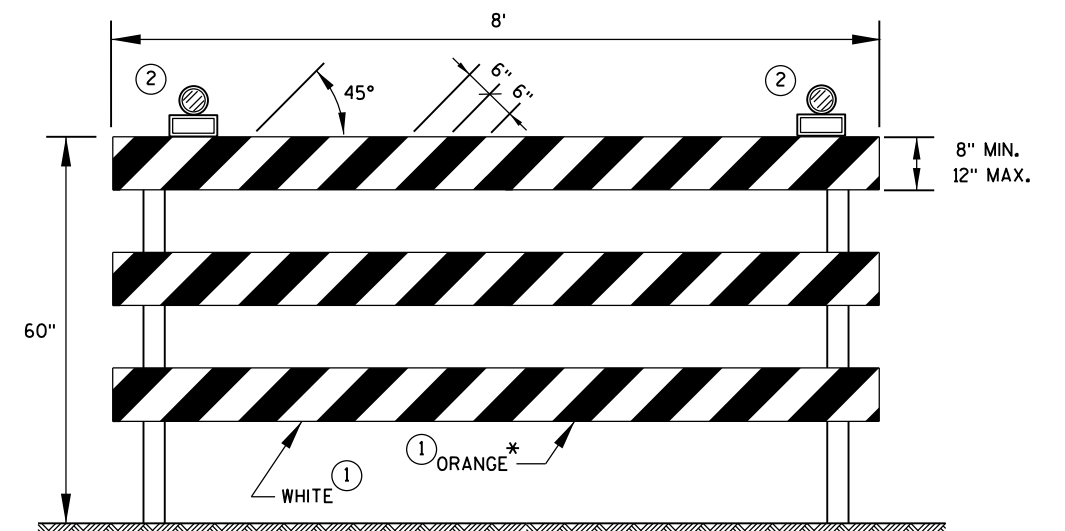
TYPE 2 BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED.
ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE 3 BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

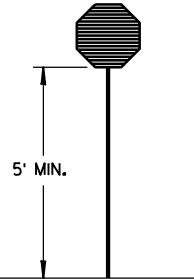
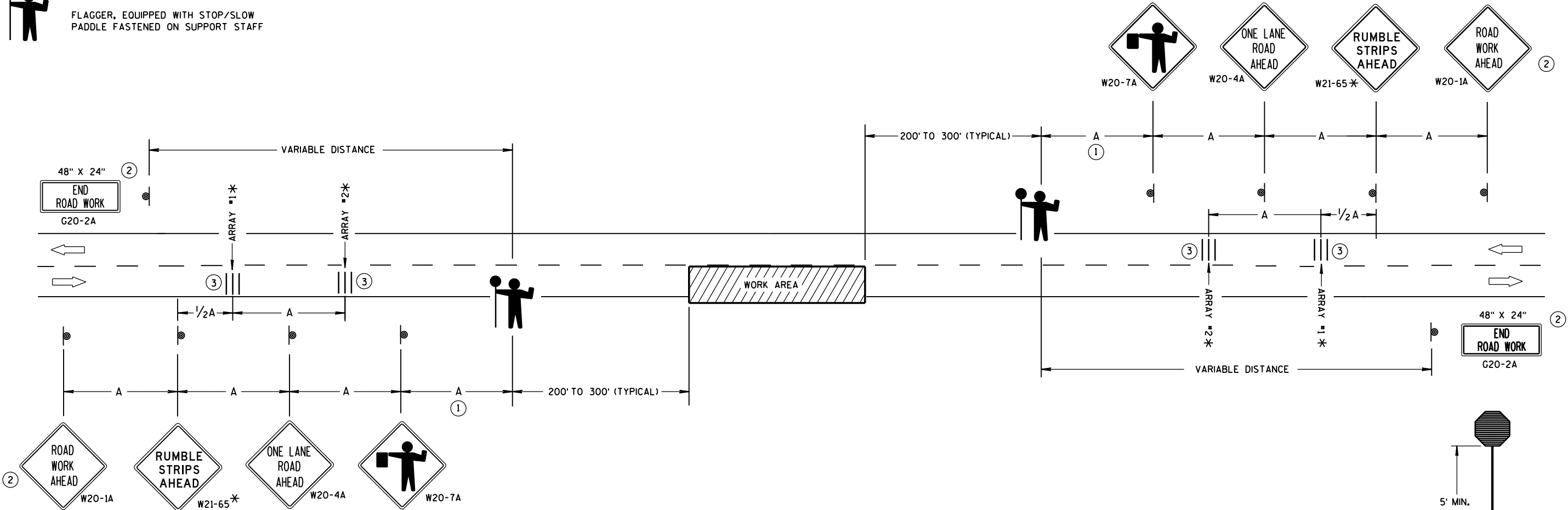
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING A
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING A.



STOP/SLOW PADDLE ON SUPPORT STAFF

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE LOCATION OF ALL FLAGGERS) SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

"W0" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS. PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, REMOVE TEMPORARY RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

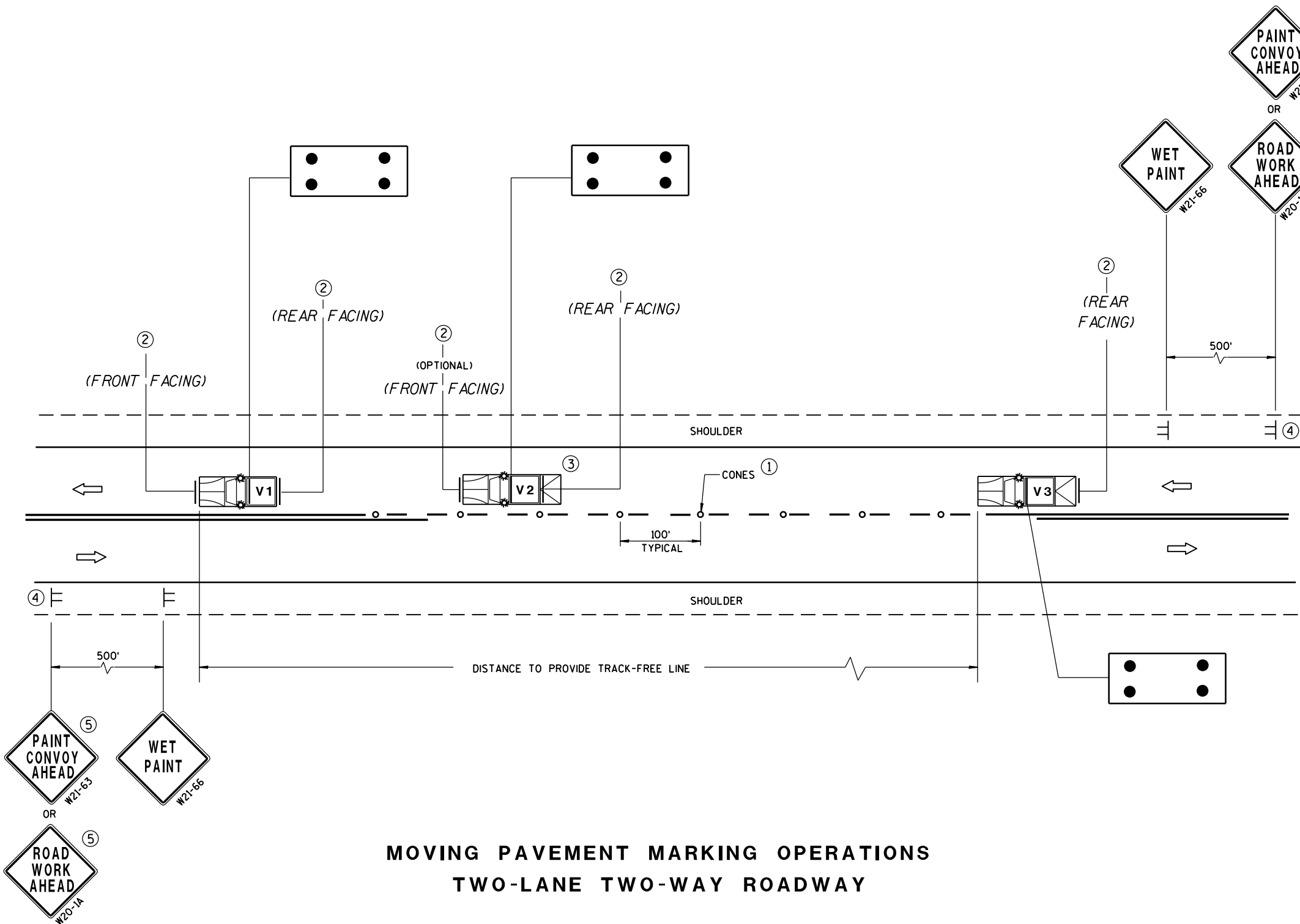
* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

- ① FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- ③ EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 /S/ Andrew Heldtke
DATE WORK ZONE ENGINEER
FHWA



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

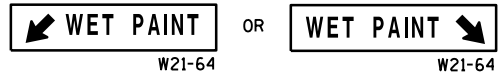
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.



③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1 LEAD VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE WITH TMA

TMA TRUCK-MOUNTED ATTENUATOR

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

CONES

FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING
OPERATION
TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2017 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

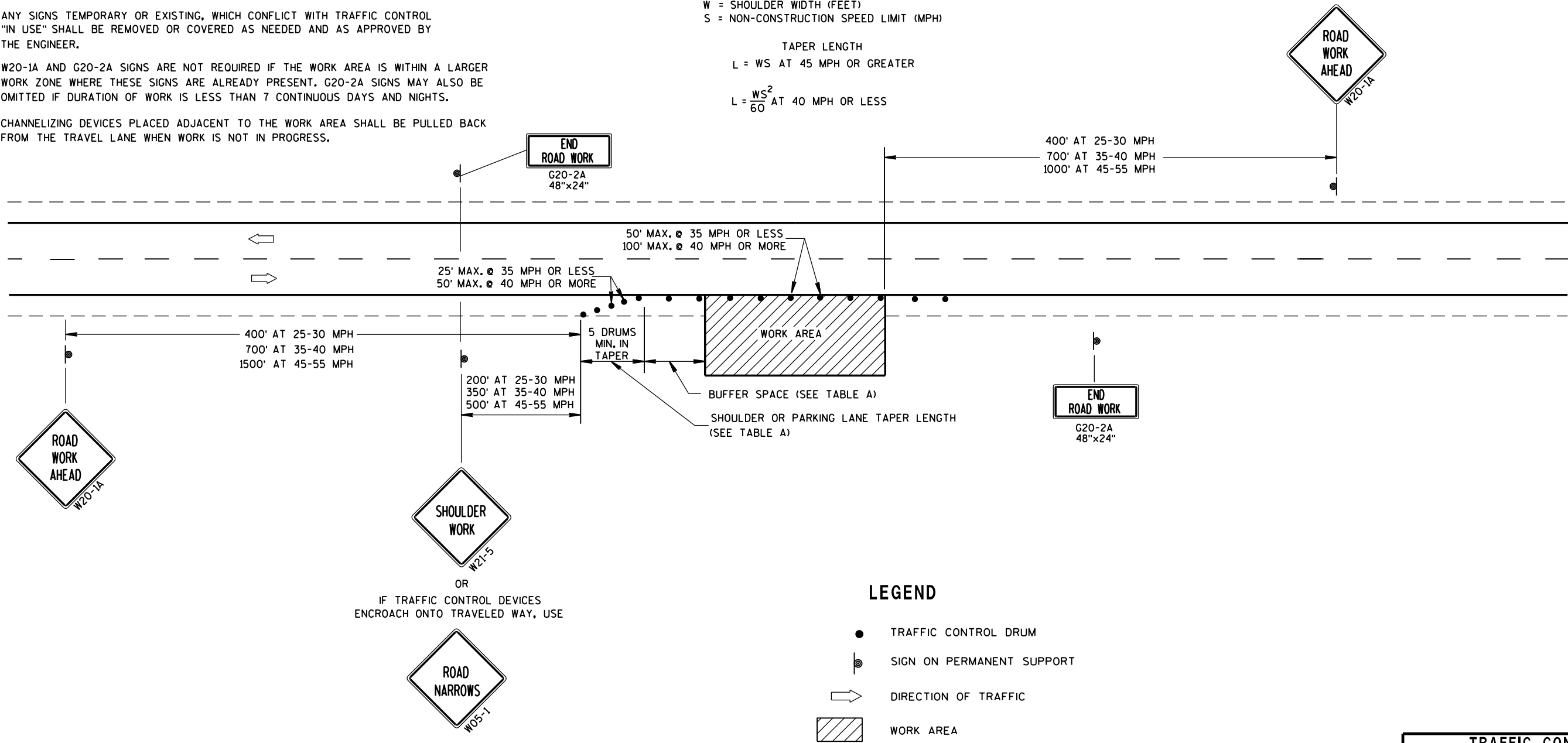
SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S \ W	4	6	8	10	
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH
L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

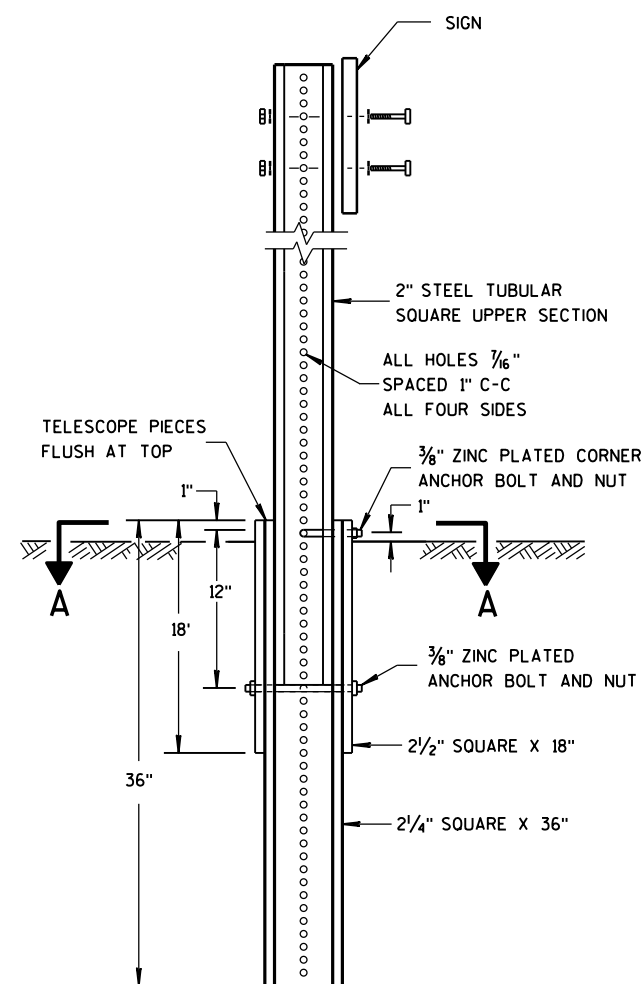
SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

- TRAFFIC CONTROL DRUM
- ⦿ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ▨ WORK AREA

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED July 14, 2015 DATE	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	



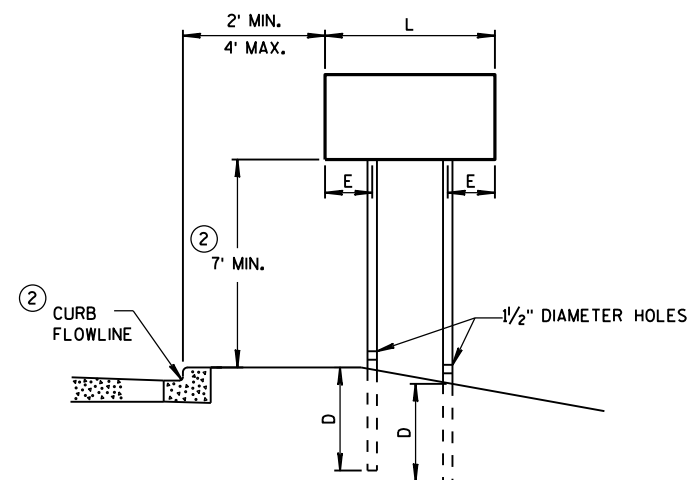
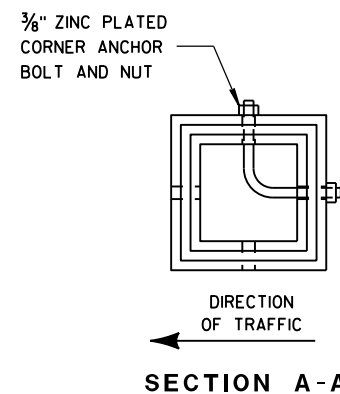
DETAIL OF TUBULAR STEEL SIGN POST

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ.FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

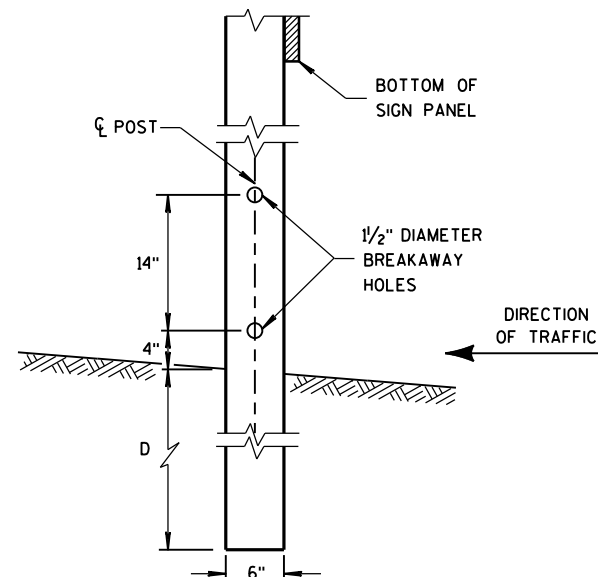


URBAN AREA

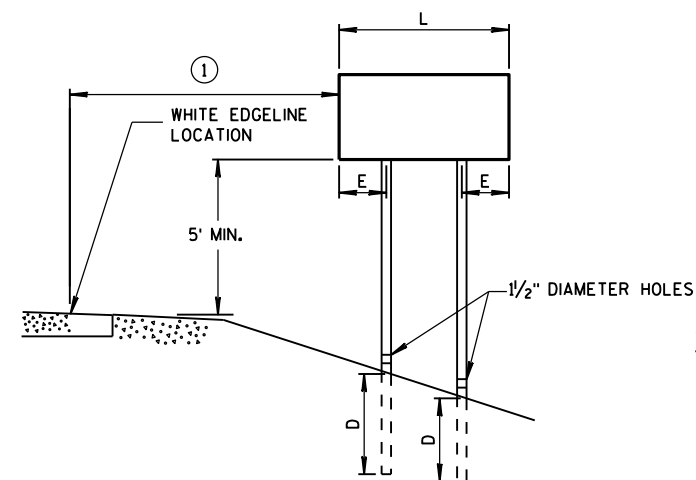
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST
EMBEDMENT DEPTH

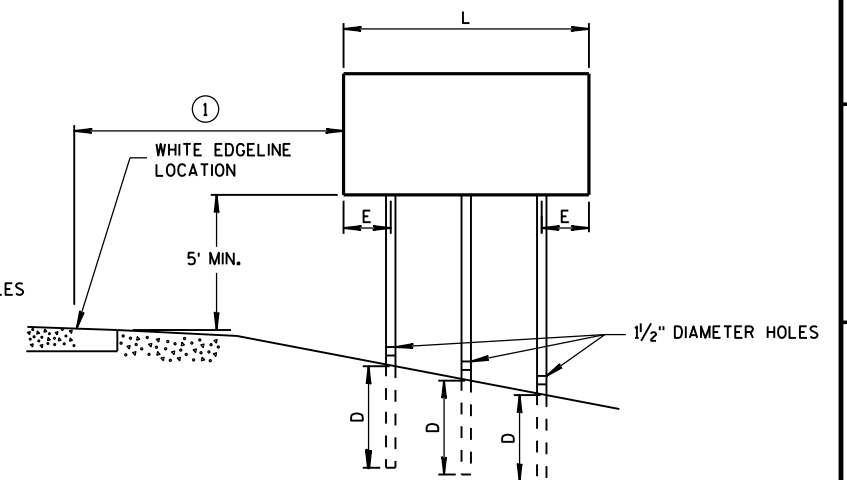
AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'



4"x6" WOOD POST MODIFICATION



RURAL AREA



4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

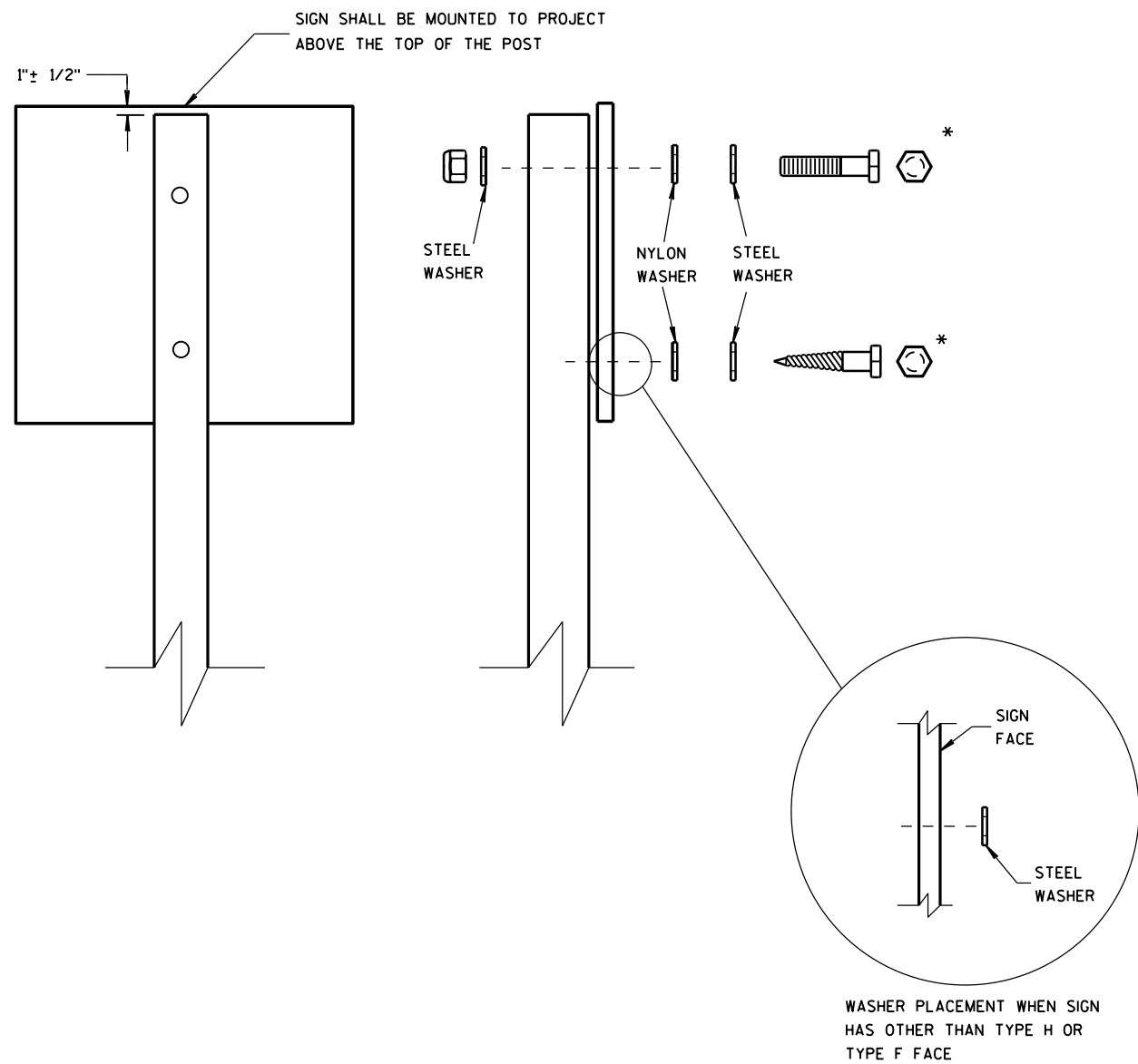
SEE NOTE (3)

GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

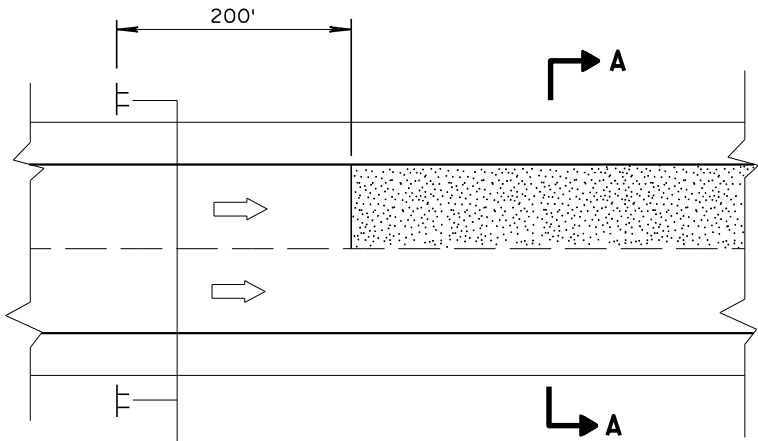
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" x 3"
 - MACHINE BOLTS - 5/16" x 6-1/2" OR 7" LENGTH W/ NUTS

- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" x 3-1/4" LENGTH W/ NUTS
 - RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

- WASHERS (ALL POSTS) -
- 1-1/4" O.D. x 3/8" I.D. x 1/16" STEEL
 - 1-1/4" O.D. x 3/8" I.D. x .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

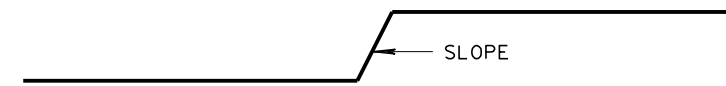


MULTI-LANE

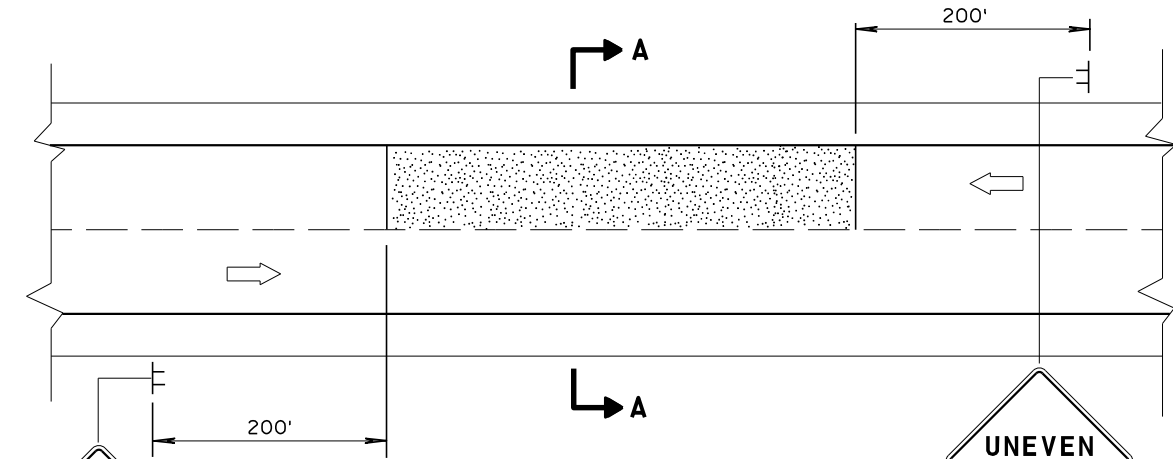


SECTION A-A

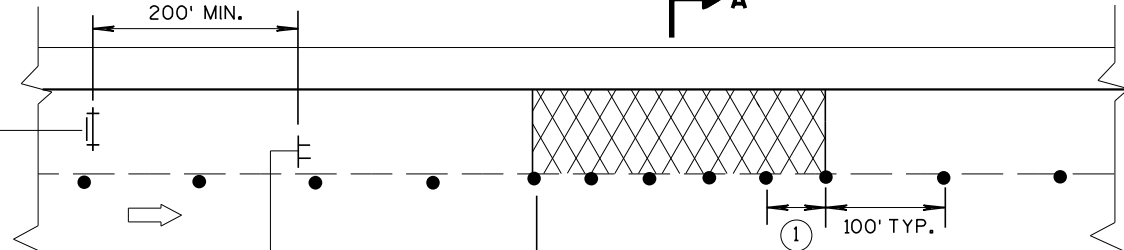
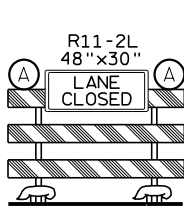
OR



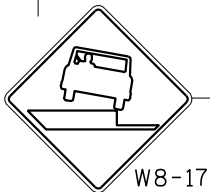
SECTION A-A



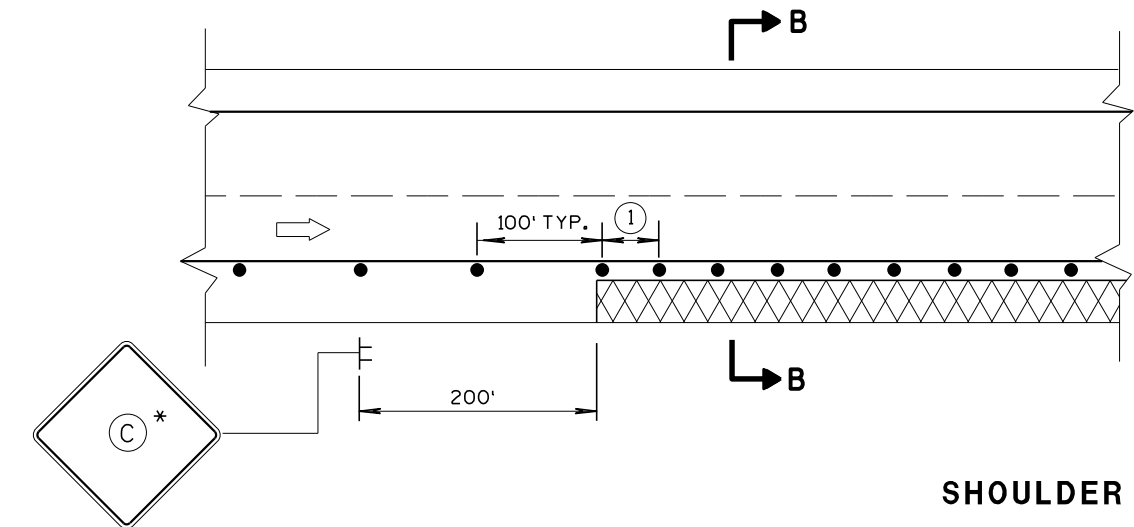
TWO-WAY TWO LANE



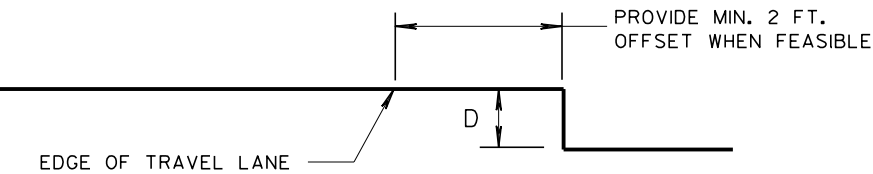
MULTI-LANE BASE PATCHING



ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B-B

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EACH ENTRANCE RAMP.

① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

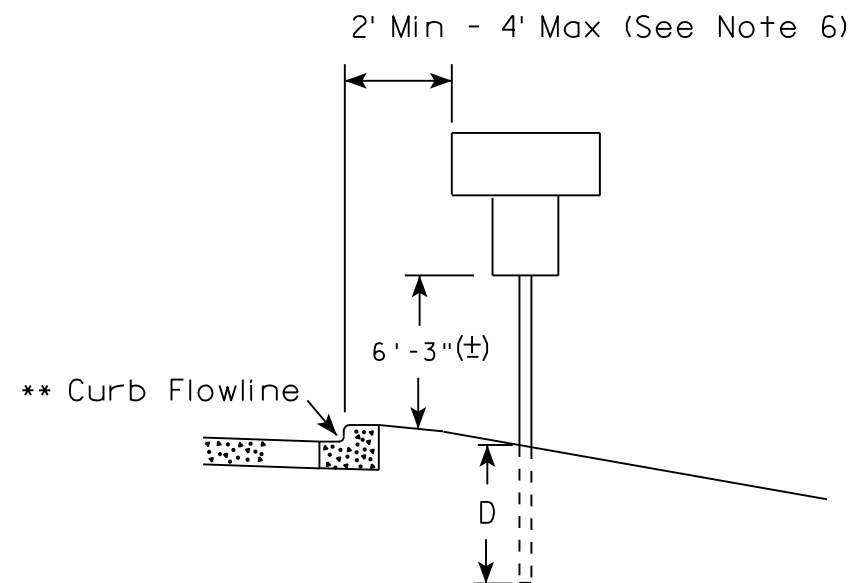
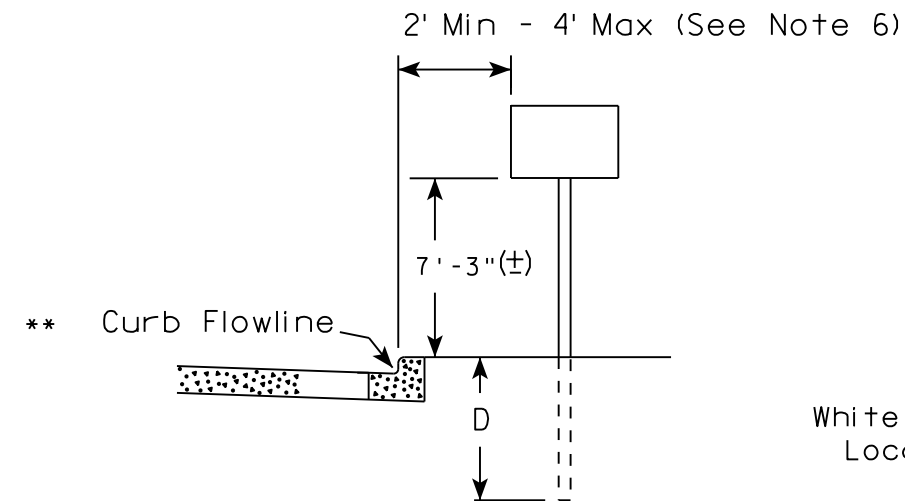
D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	 W08-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	 W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

TRAFFIC CONTROL,
DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

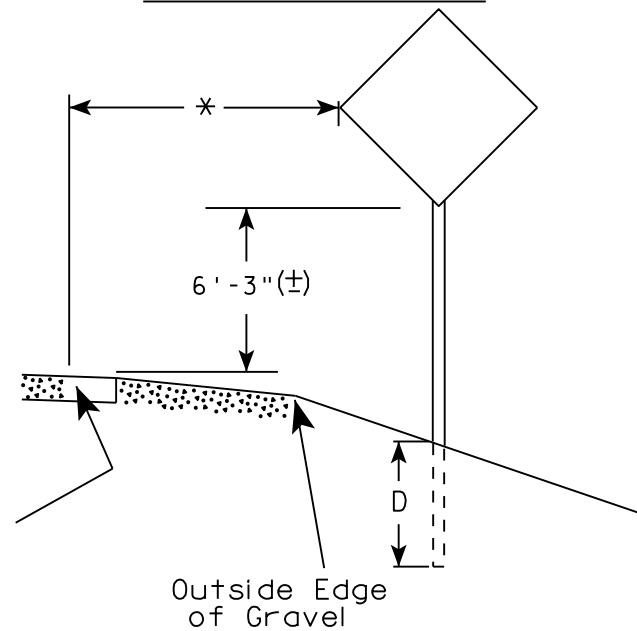
APPROVED
March 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA

URBAN AREA

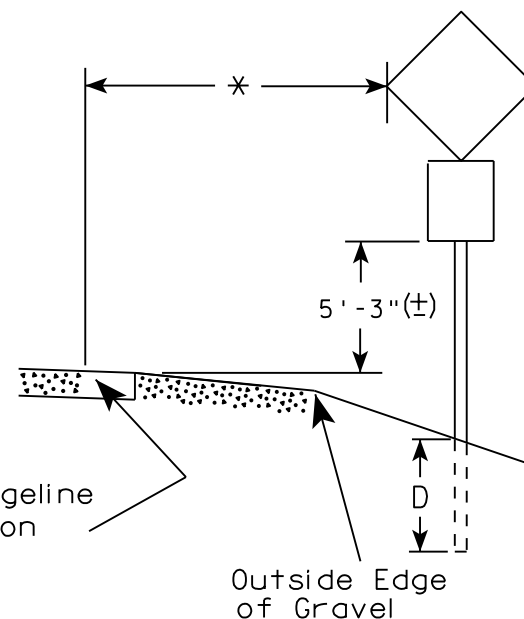


White Edgeline
Location

RURAL AREA (See Note 2)



White Edgeline
Location



Outside Edge
of Gravel

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

✱✱ The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

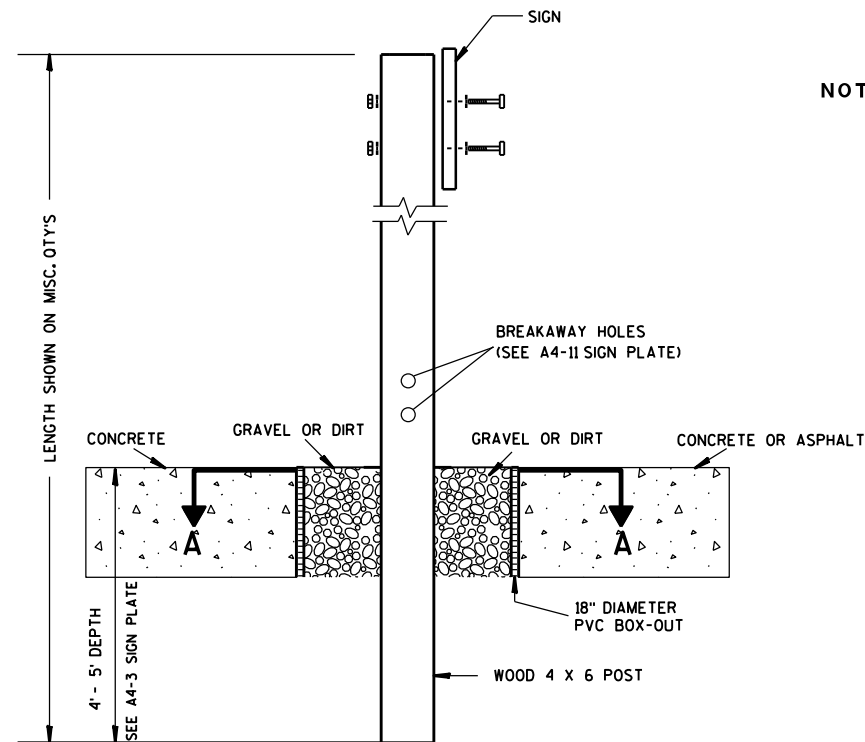
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

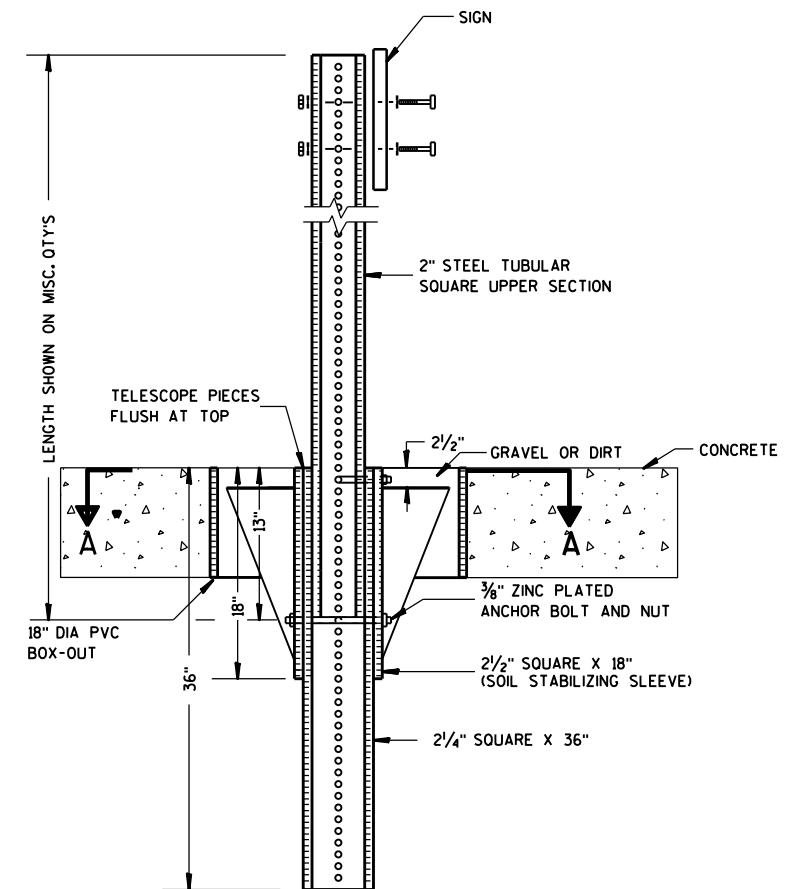
E



ELEVATION VIEW

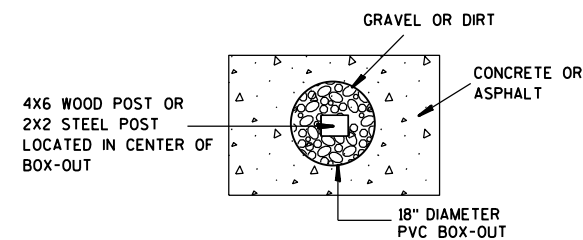
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES: 1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

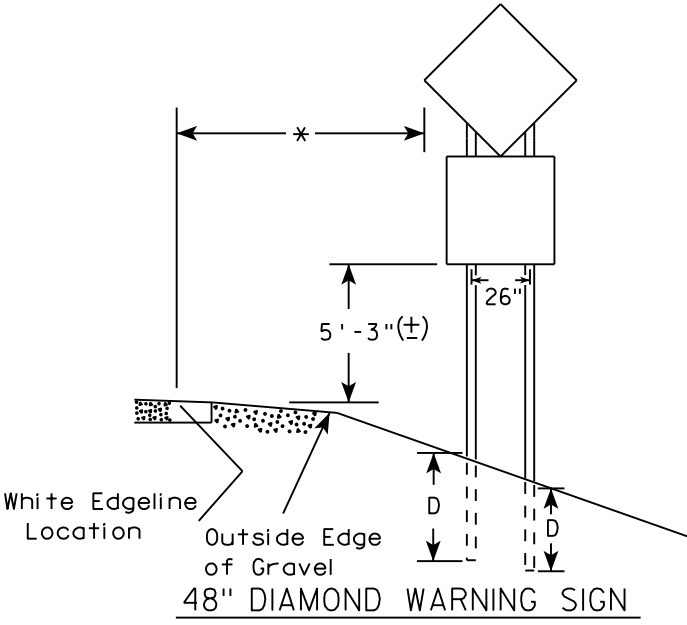
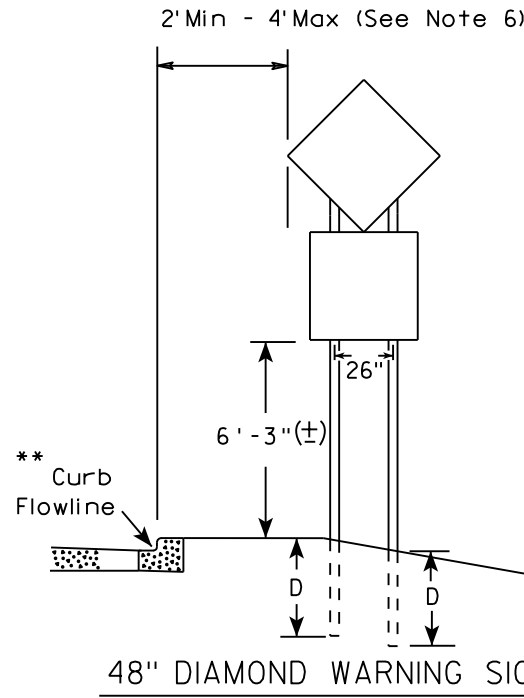
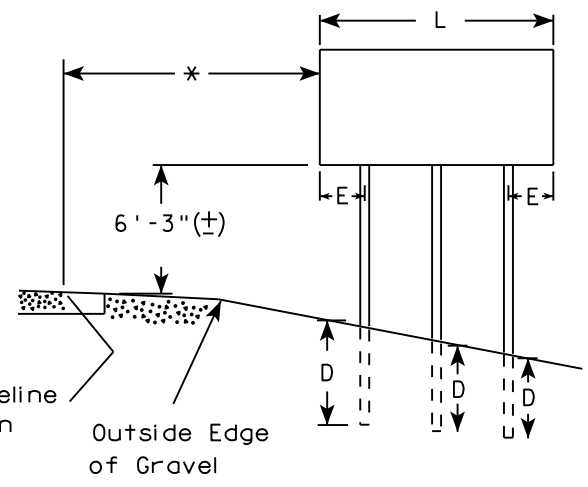
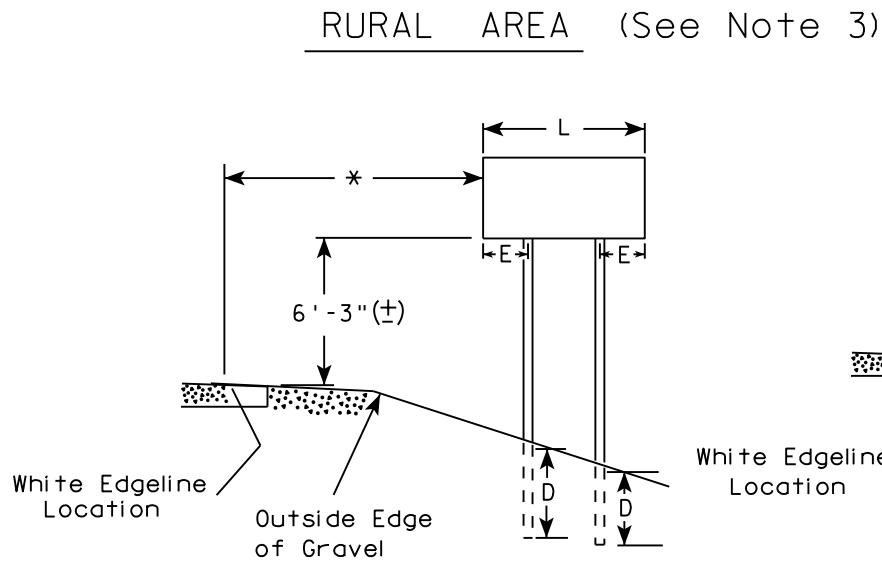
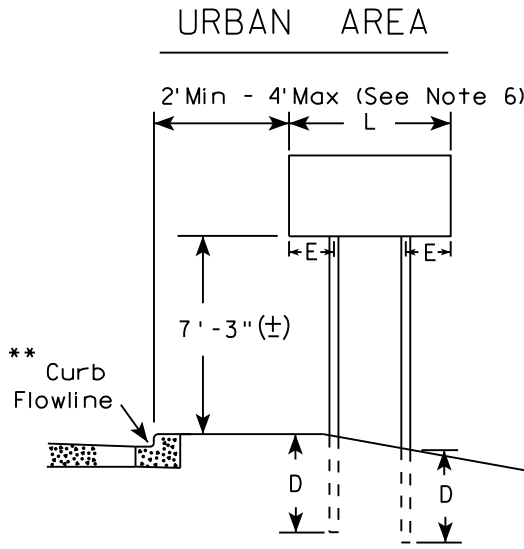
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

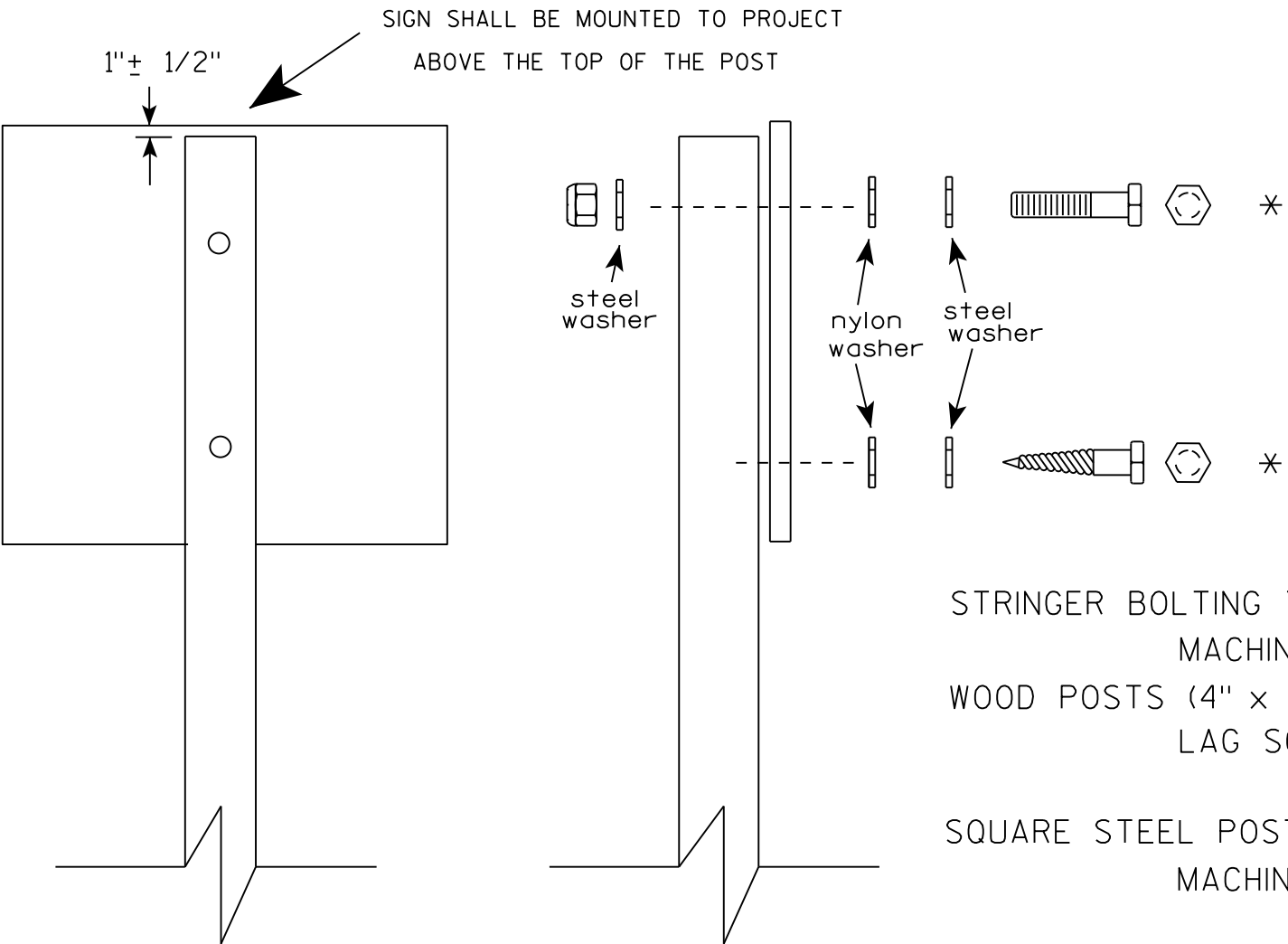
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

- GENERAL NOTES
1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
 2. See tables below for required number of posts.
 3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
 4. The (±) tolerance for mounting height is 3 inches.
 5. J-Assemblies are considered to be one sign for mounting height.
 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
 7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
 8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

- * 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.
- ** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.
- *** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

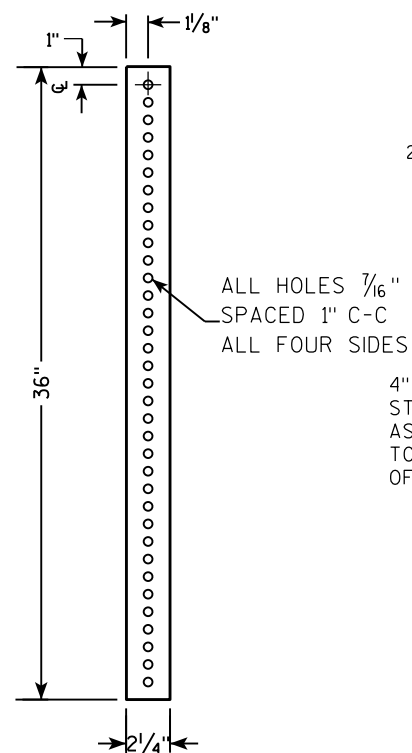
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
 - 3/8" X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 - 3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
- O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
 - 1-1/4" O.D. X 3/8" I.D. X .080 NYLON

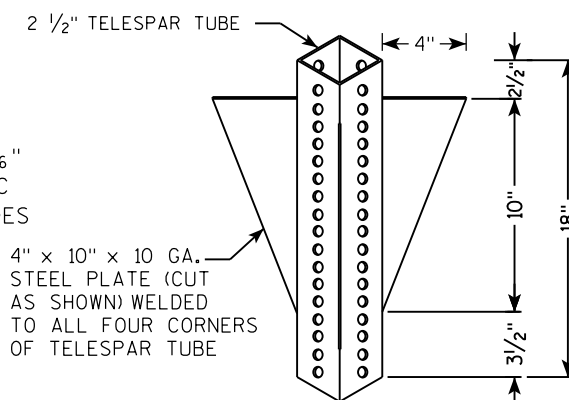
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 8/11/16	PLATE NO. A4-8.8

**2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**



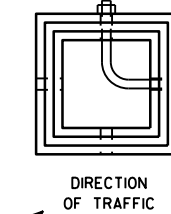
**2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH**

[illegible]

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY:

- TELESCOPE PIECES FLUSH AT TOP**: Indicated by a dimension line on the left.
- 2" STEEL TUBULAR SQUARE UPPER SECTION**: The main vertical support.
- ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES**: Specification for the perforations in the upper section.
- SIGN**: Attached to the top of the upper section.
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL**: Reference to a separate plate for hardware details.
- 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT**: Hardware used to secure the post to the base.
- 1"**: Dimension for the offset of the anchor bolt from the post face.
- 3/8" ZINC PLATED ANCHOR BOLT AND NUT**: Hardware used to secure the base plate to the ground.
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)**: The base of the post.
- 2 1/4" SQUARE X 36"**: The base plate.
- Dimensions**:
 - 36" (Total height of the base plate)
 - 18" (Height of the base plate from the ground line)
 - 12" (Height of the base plate from the ground line)
- Arrows A**: Indicate downward forces or weights applied to the base plate.

3/8" ZINC PLATED CORNER
ANCHOR BOLT AND NUT



SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rausch

for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

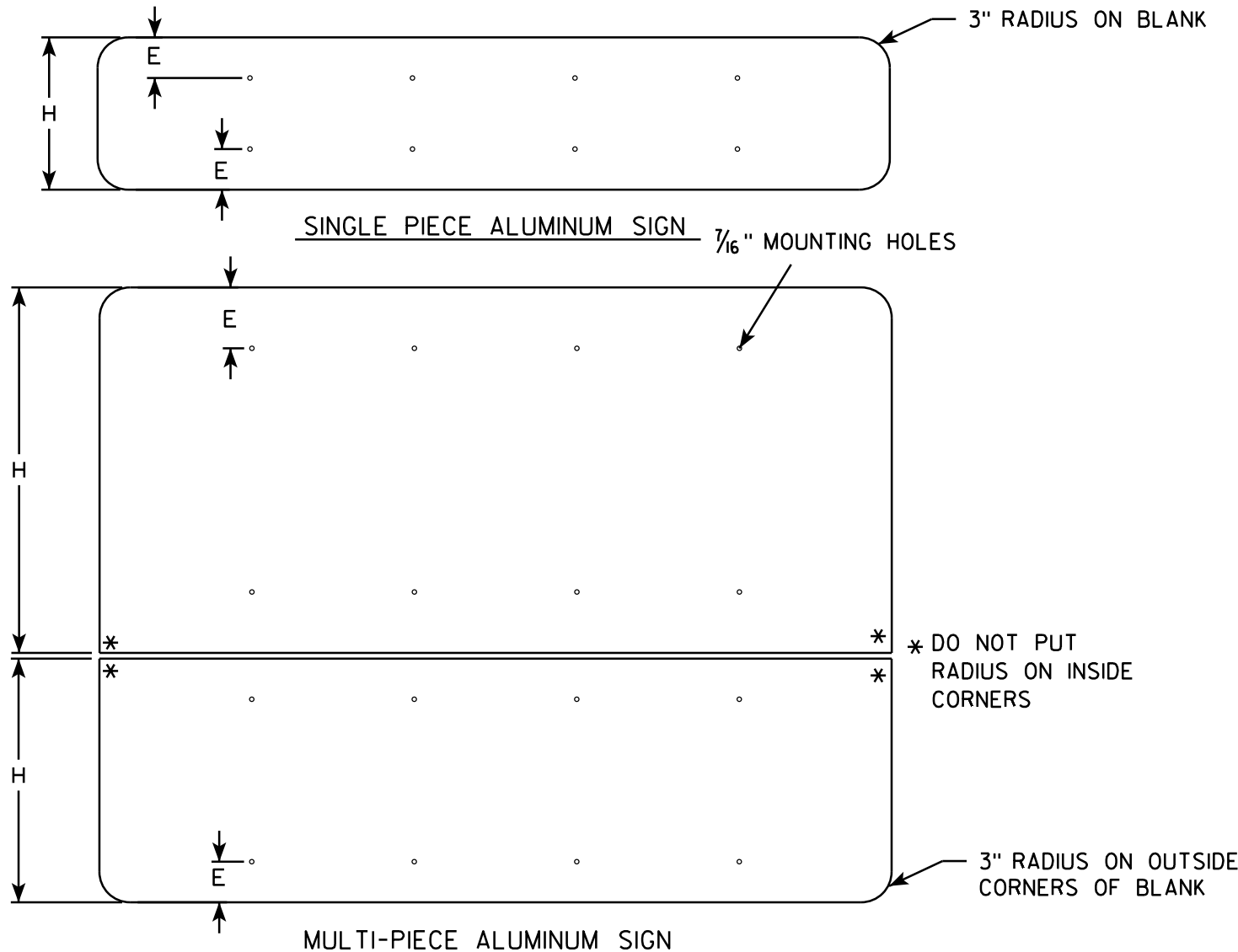
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

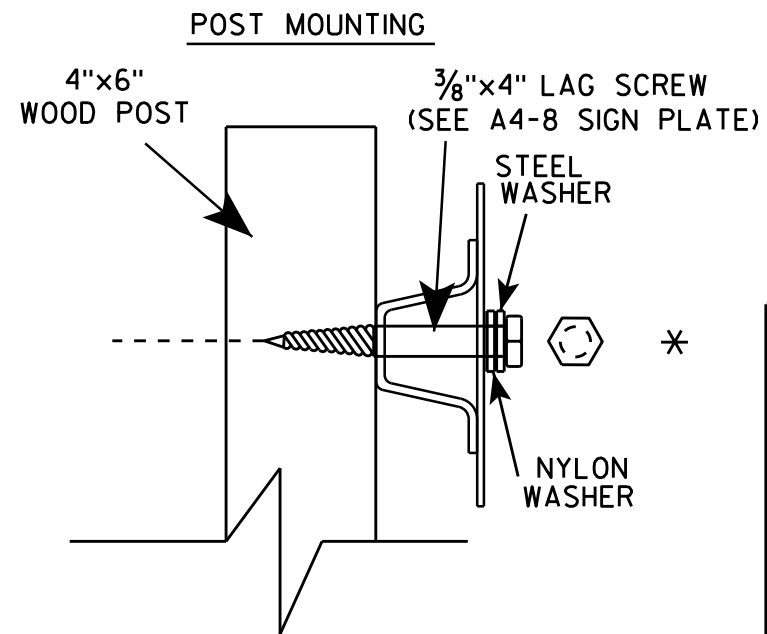
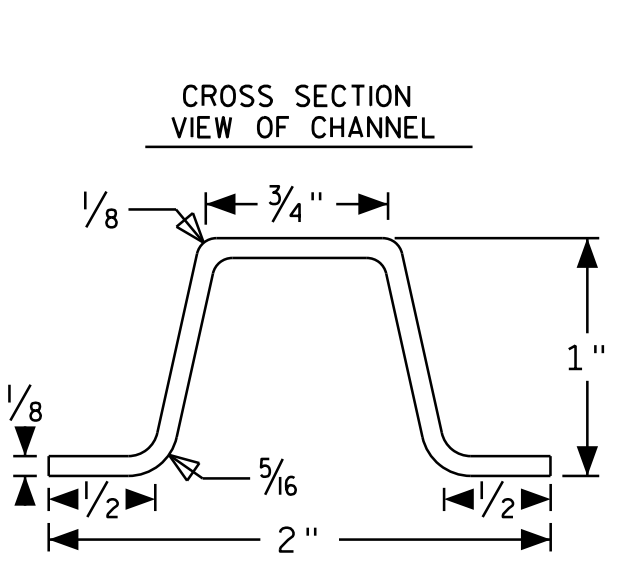
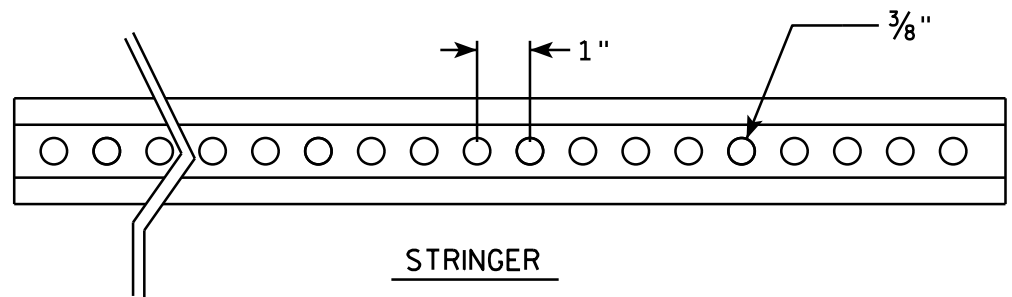
1



GENERAL NOTES

- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES			
78"	72"	2	16"	15"	31"	47"	63"
84"	72"	2	17"	16 1/2"	33 1/2"	50 1/2"	67 1/2"
90"	72"	2	18"	18"	36"	54"	72"
96"	90"	2	19"	19 1/2"	38 1/2"	57 1/2"	76 1/2"
102"	90"	2	20"	21"	41"	61"	81"
108"	90"	2	21"	22 1/2"	43 1/2"	64 1/2"	85 1/2"
114"	108"	3	15"	12"	27"	42"	57" 72" 87" 102"
120"	108"	3	16"	12"	28"	44"	60" 76" 92" 108"
126"	108"	3	17"	12"	29"	46"	63" 80" 97" 114"
132"	126"	3	18"	12"	30"	48"	66" 84" 102" 120"
138"	126"	3	19"	12"	31"	50"	69" 88" 107" 126"
144"	126"	3	20"	12"	32"	52"	72" 92" 112" 132"



SIGN STRINGER MOUNTING REQUIREMENTS

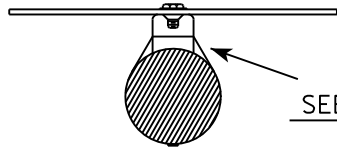
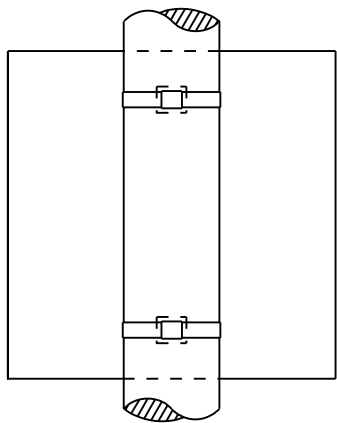
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/26/16 PLATE NO. A4-18.1

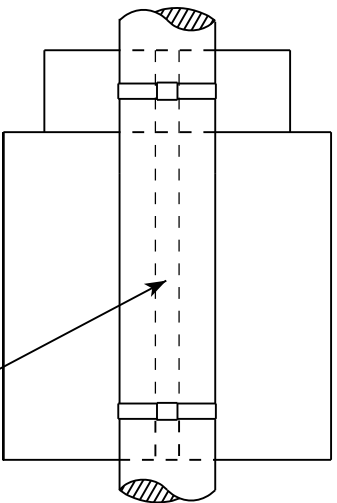
BANDING

SINGLE SIGN

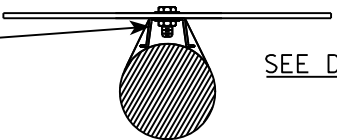


SEE DETAIL A

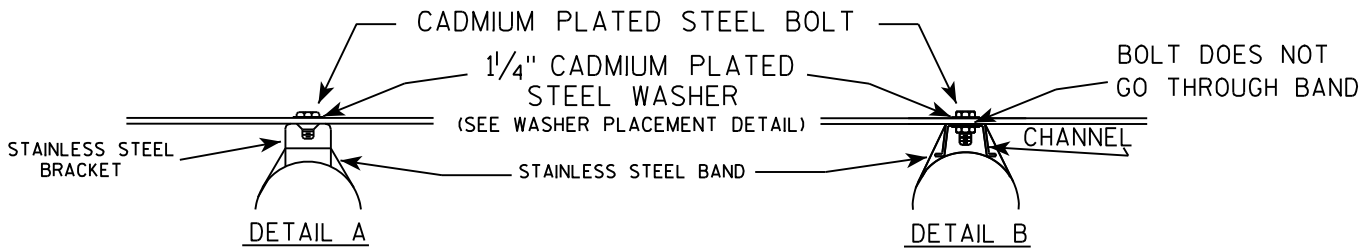
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



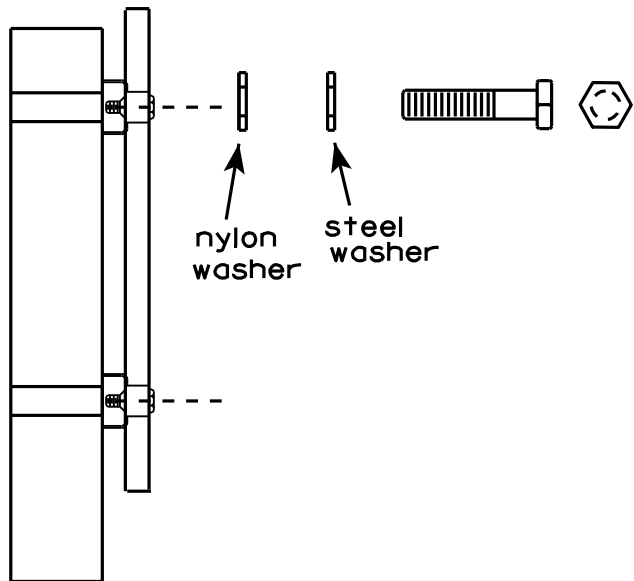
SEE DETAIL B



GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be $\frac{3}{4}$ " in width and 0.025" thickness.

WASHER PLACEMENT



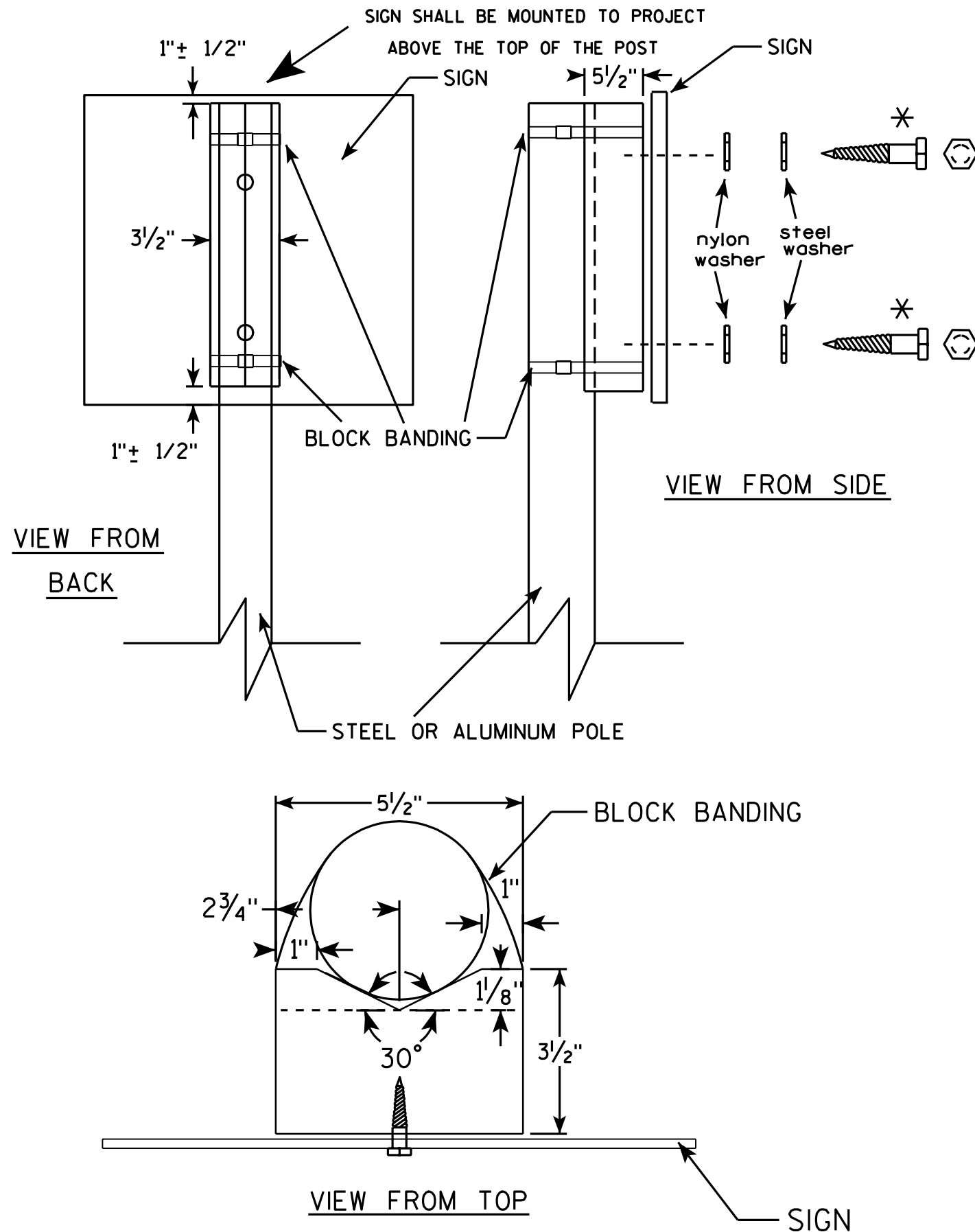
WASHERS (ALL POSTS) -
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3



GENERAL NOTES

1. WOOD 4"x6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, 3/4" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
 - b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
 - c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO:

E

7

Metric equivalent
for this sign is:

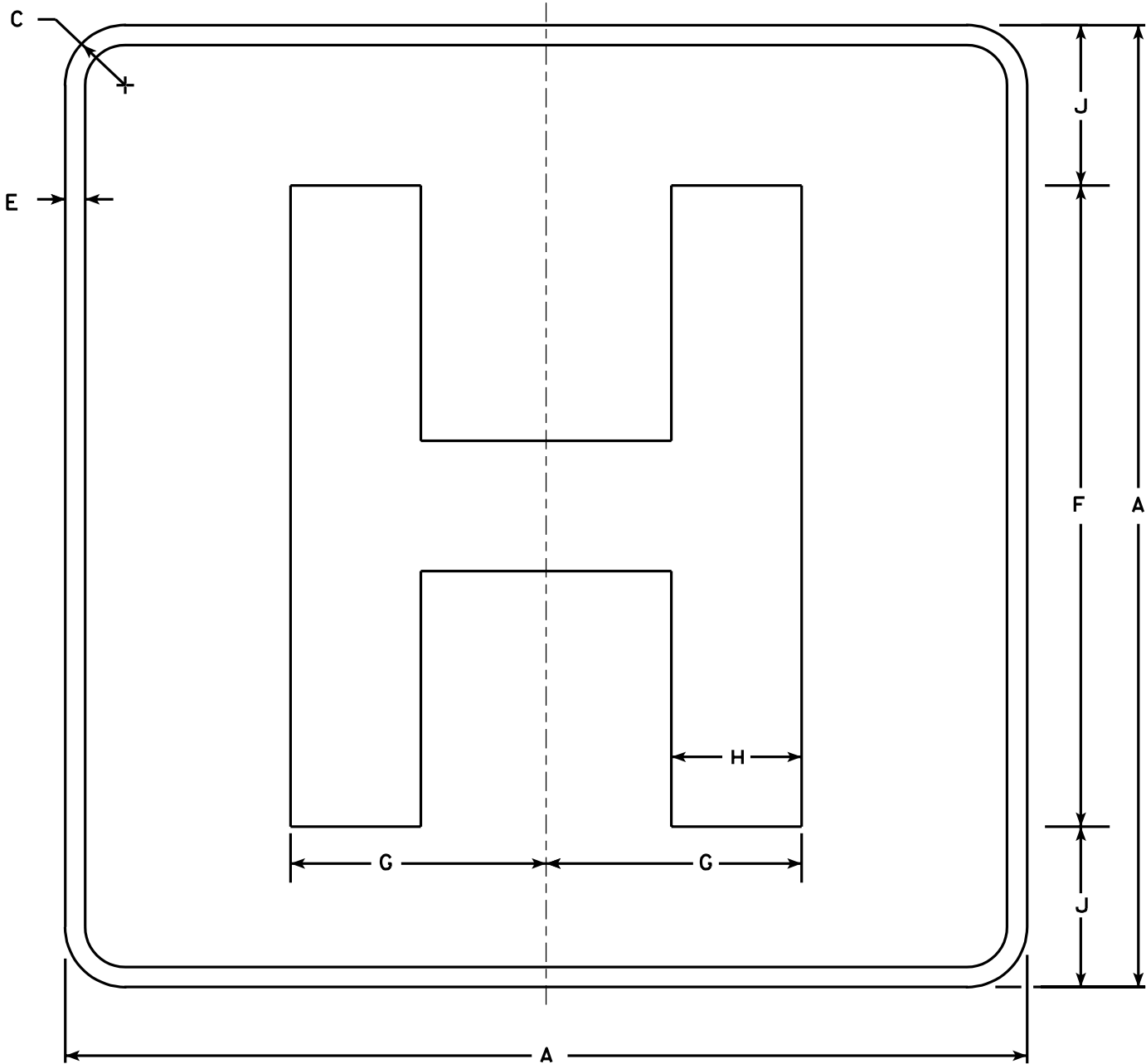
SIZE	
1	450 mmX 450 mm
2	600 mmX 600 mm
3	900 mmX 900 mm
4	X
5	X

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/8		1/2	12	4 3/4	2 3/8		3																	4.0
2	24		1 1/2		1/2	16	6 3/8	3 1/4		4																	4.0
3	36		2 1/4		3/4	24	9 1/2	4 7/8		6																	9.0
4																											
5																											

PROJECT NO:

SHEET NO:

E



D9-2

NOTES

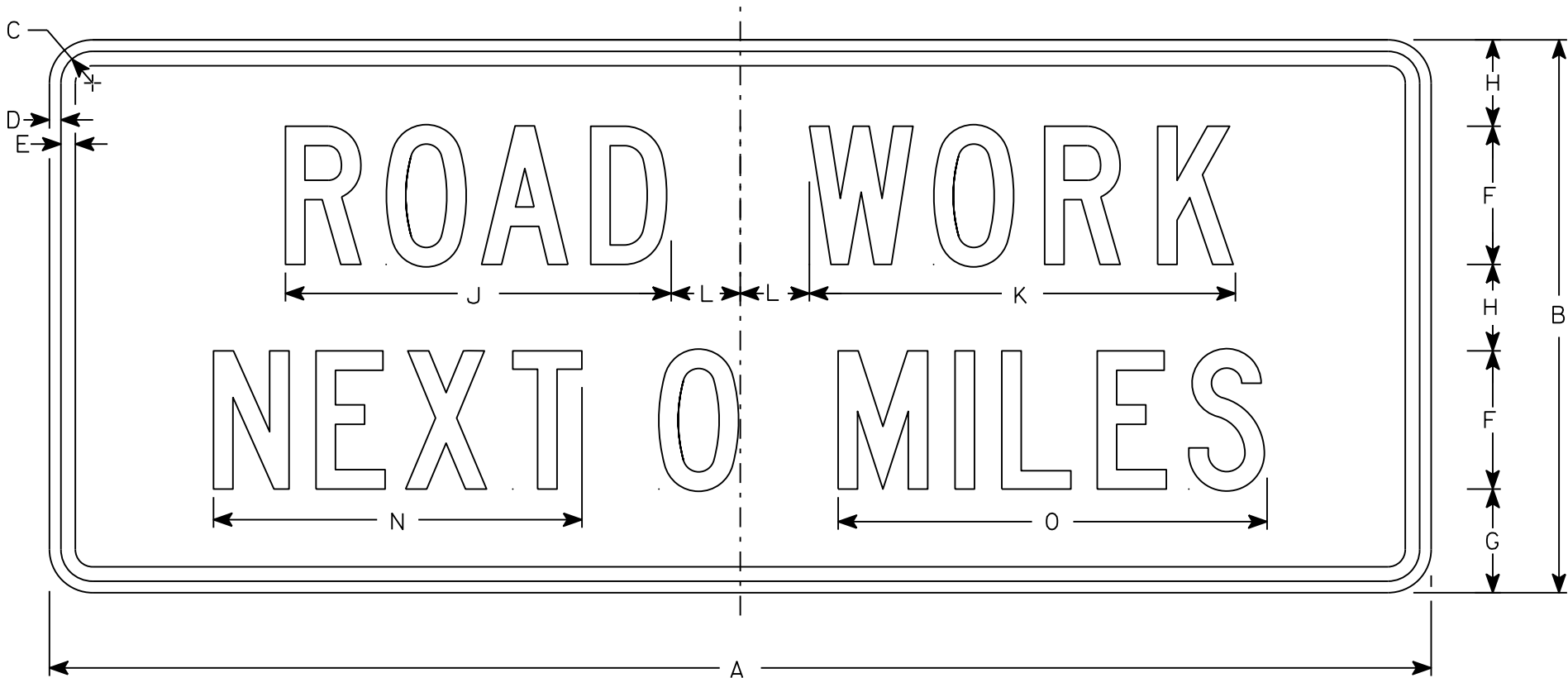
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Blue
Message - White - Type H Reflective
3. Message Series - E Modified
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

STANDARD SIGN
D9-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Chester J. Spang
for State Traffic Engineer

DATE 1/15/02 PLATE NO. D9-2.4



G20-1

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Round distance to nearest whole Mile and substitute appropriate numerals and optically adjust spacing to achieve proper balance

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	60	24	1 3⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10
3																											
4	60	24	1 3⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10
5																											

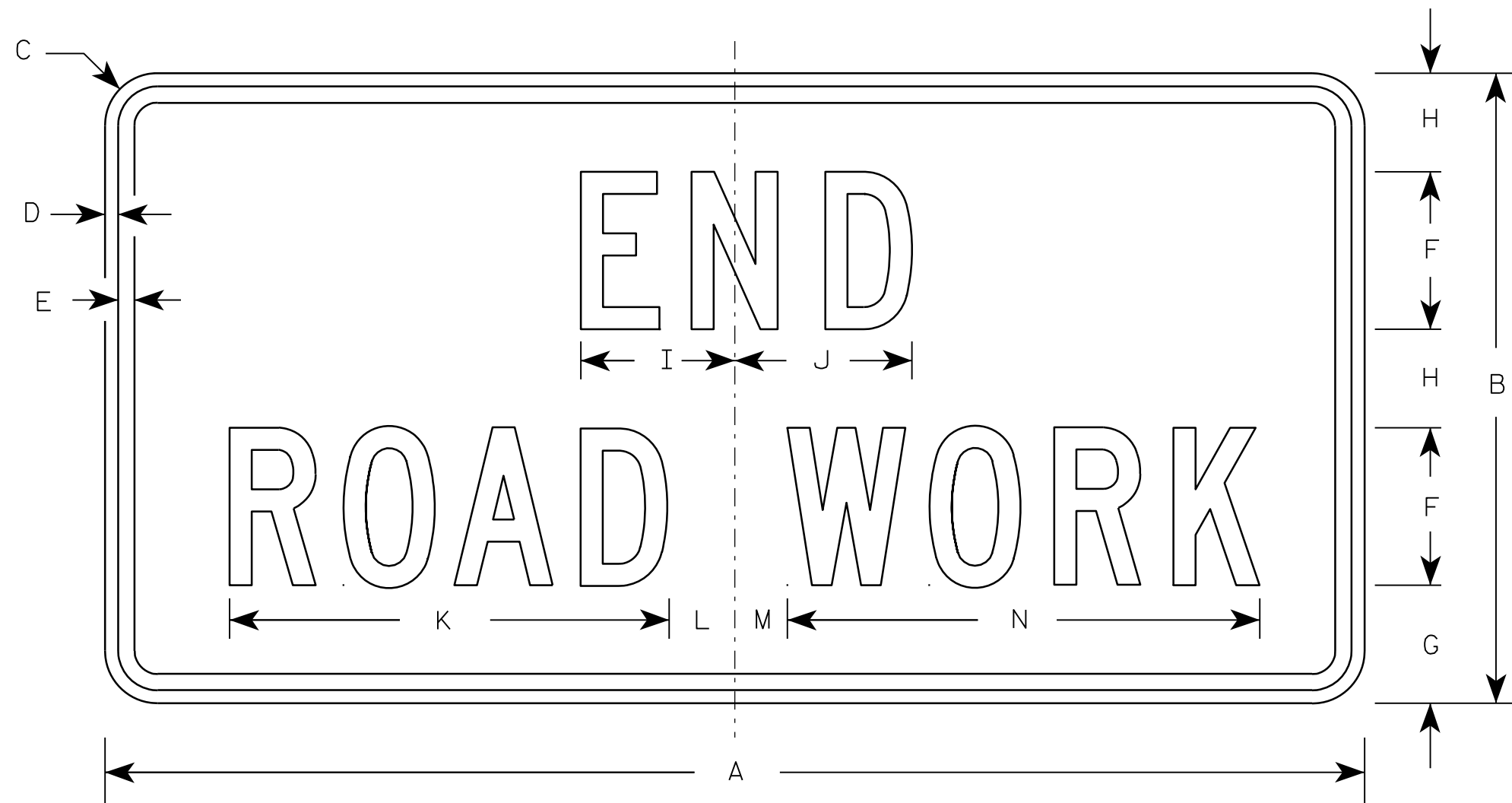
STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/14/17 PLATE NO. G20-1.8

7



G20-2A

Metric equivalent
for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. m.
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

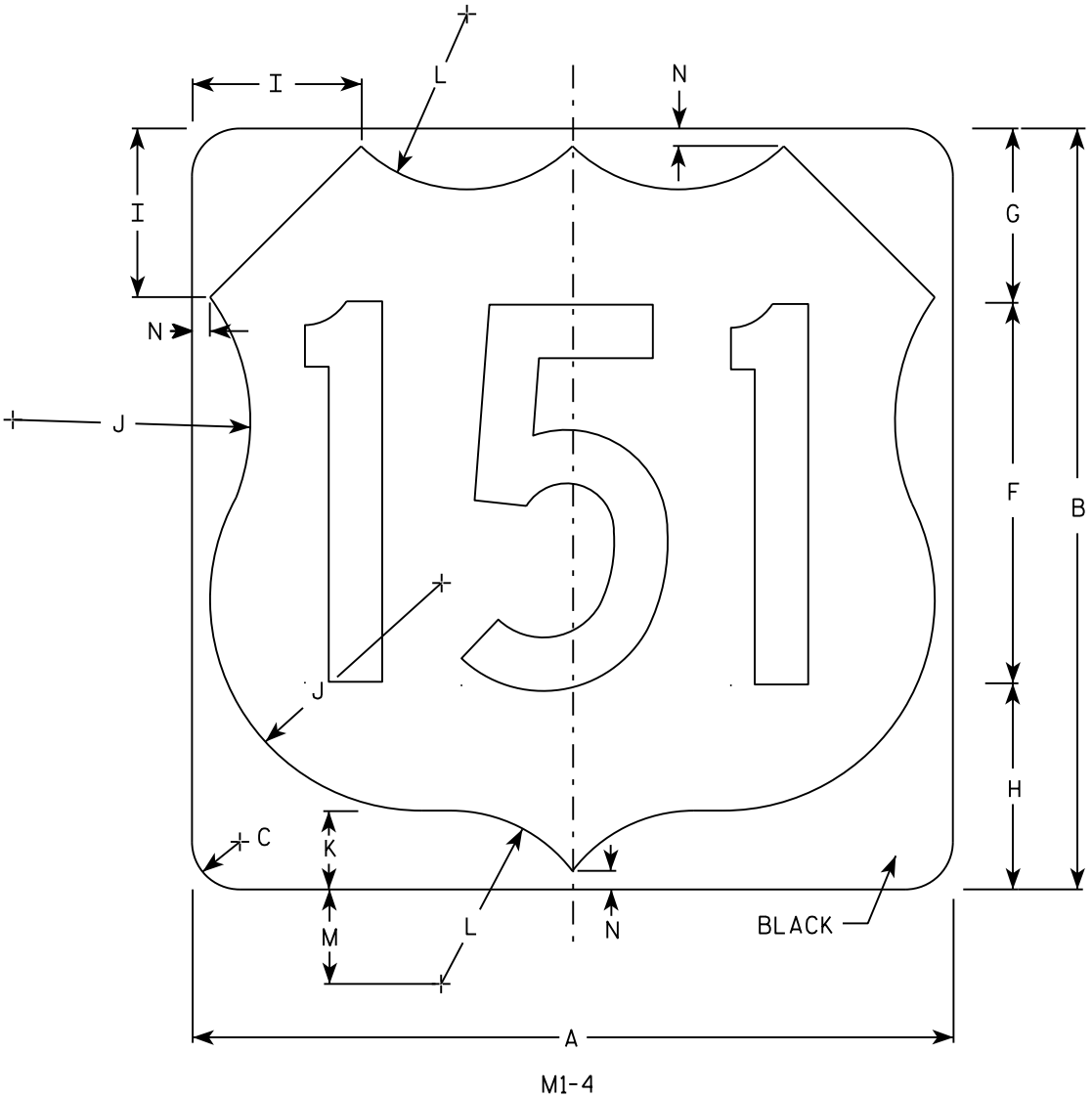
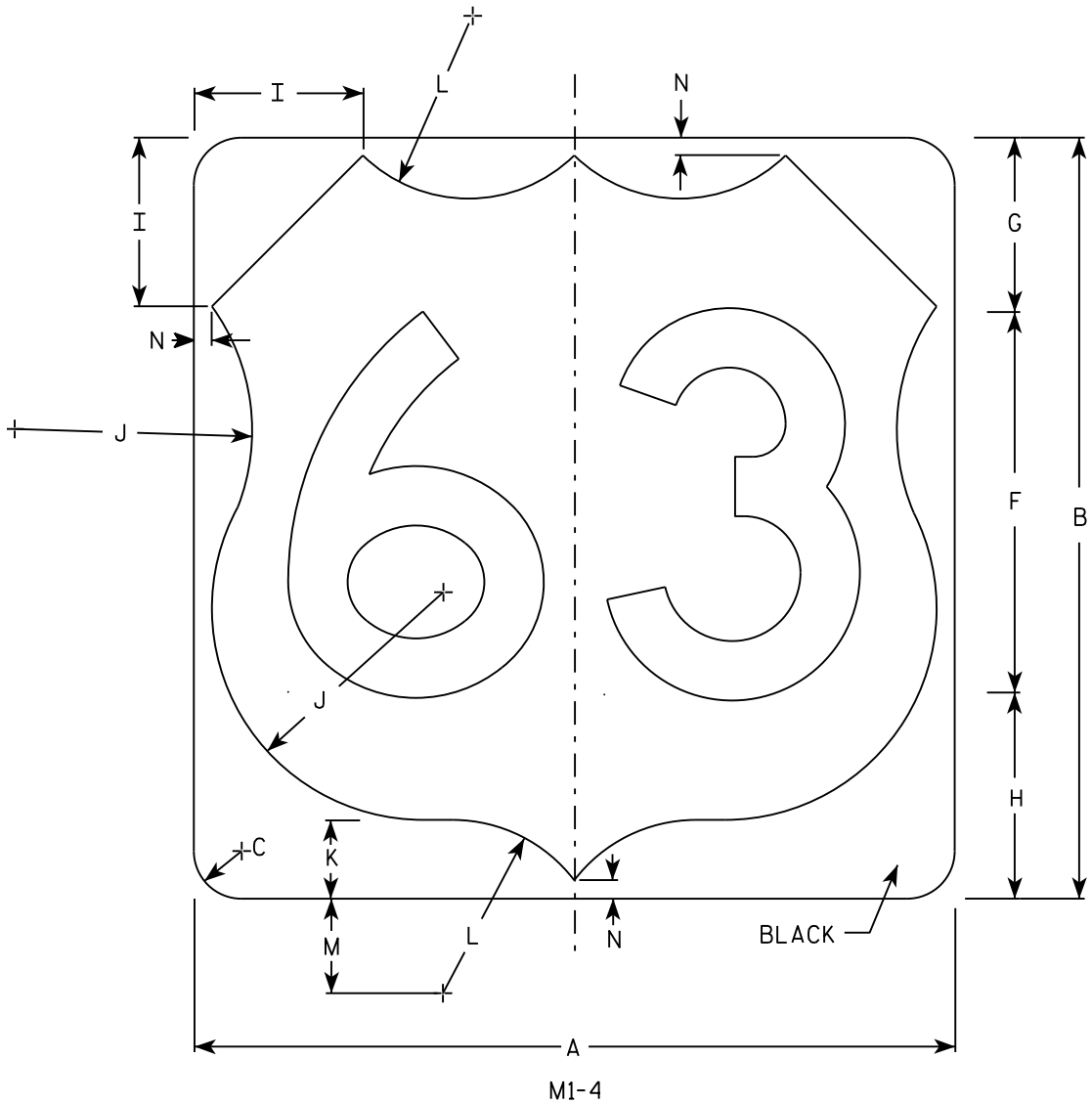
NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Orange
Message - Black
- Message Series - C
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D except 3 number signs Series C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Areq sq. ft.
1																											
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

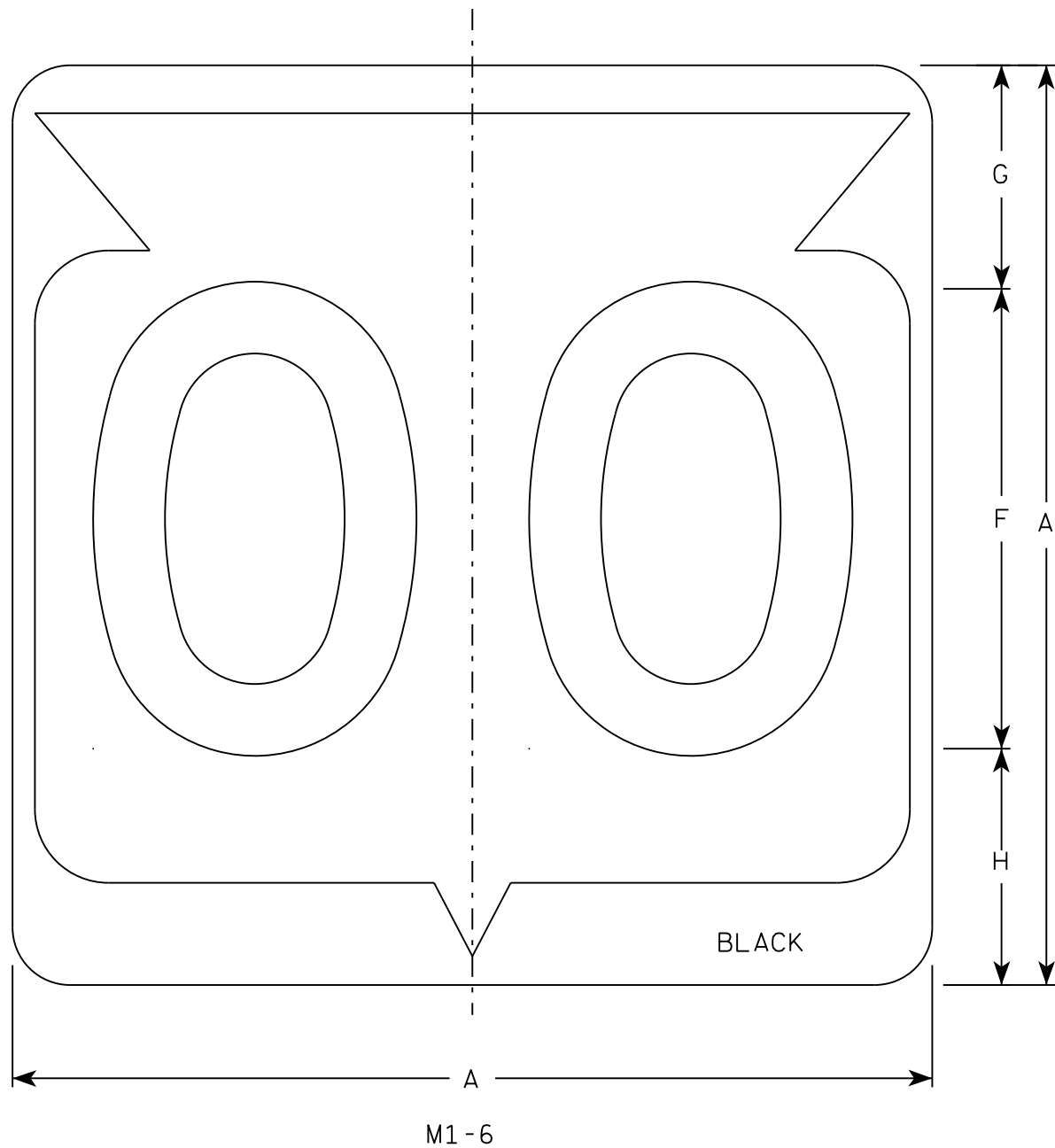
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

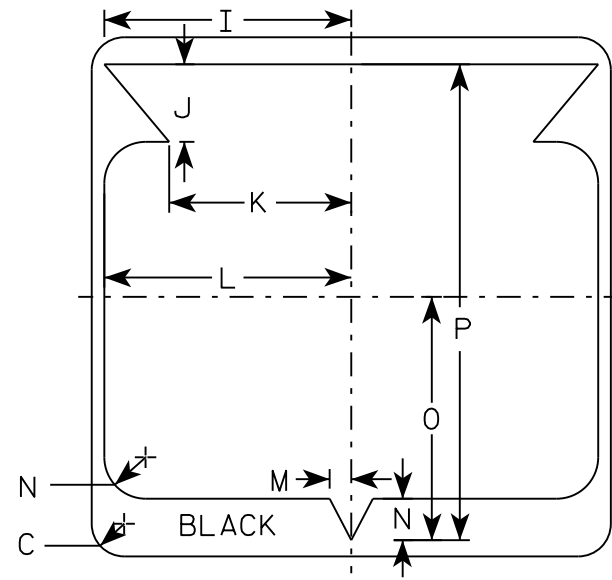
DATE 3/16/18 PLATE NO. M1-4.10

7



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D except 3 number signs Series C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

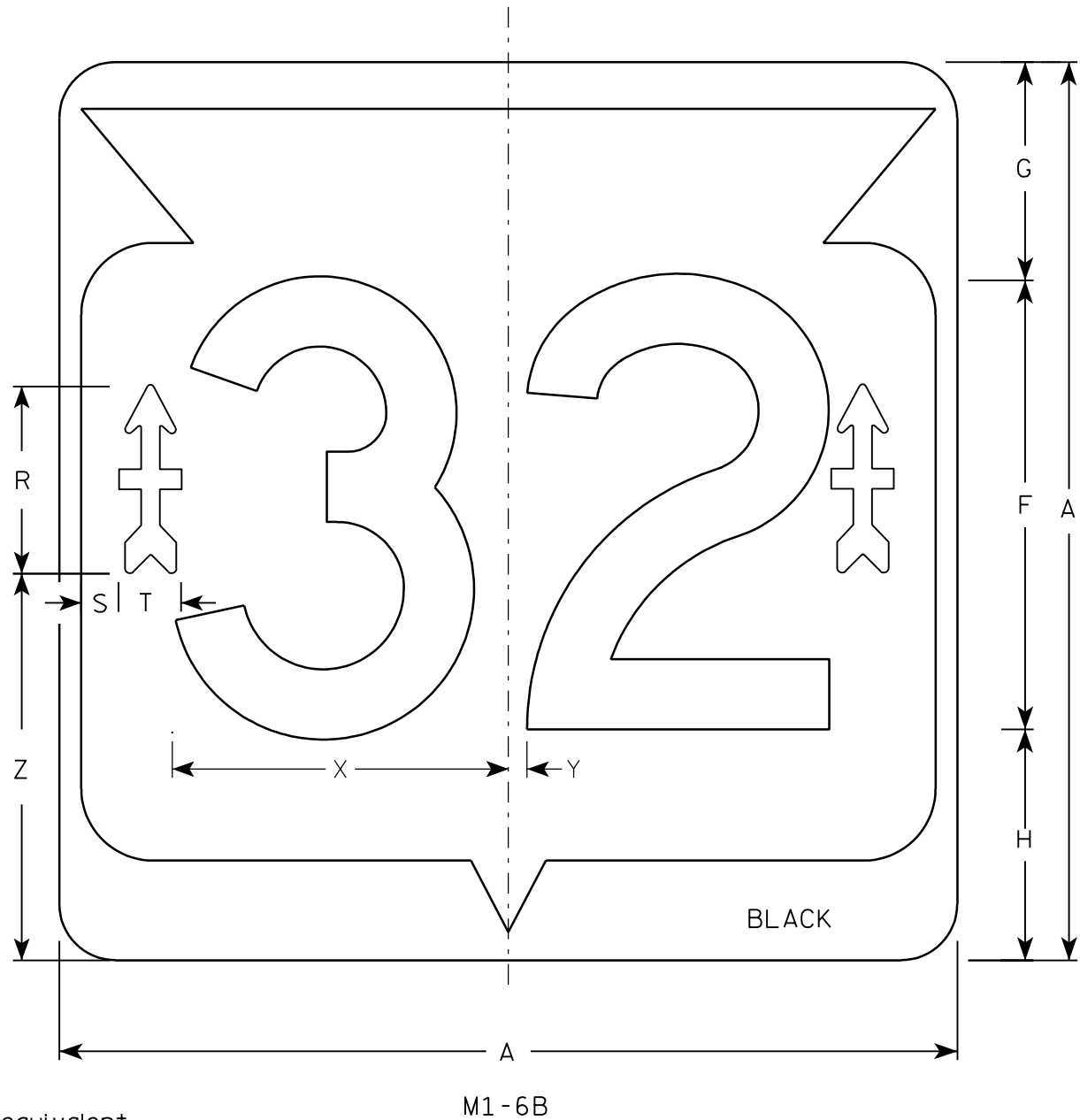
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

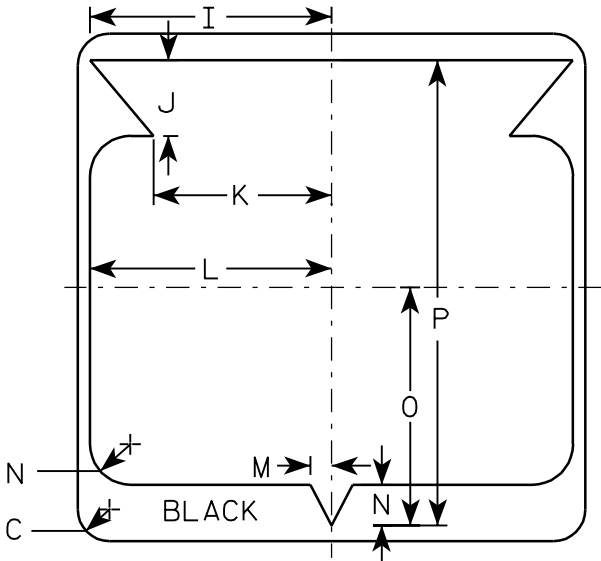


SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

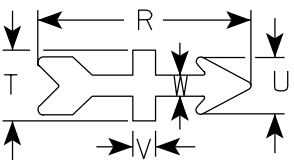
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8		5 1/8	3/4	1 7/8	1 1/2	5/8	5/8	9	1/2	10 1/2	4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33		7 1/2	1 1/2	2 1/2	2	7/8	3/4	13 1/2	3/4	15 1/2	9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33		7 1/2	1 1/2	2 1/2	2	7/8	3/4	13 1/2	3/4	15 1/2	9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33		7 1/2	1 1/2	2 1/2	2	7/8	3/4	13 1/2	3/4	15 1/2	9.0	.81

NOTES

1. Sign is Type II - Type H - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black
Message - Black
Arrow - Type H Reflective Red
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



32nd DIVISION ARROW
ACTUAL SIZE

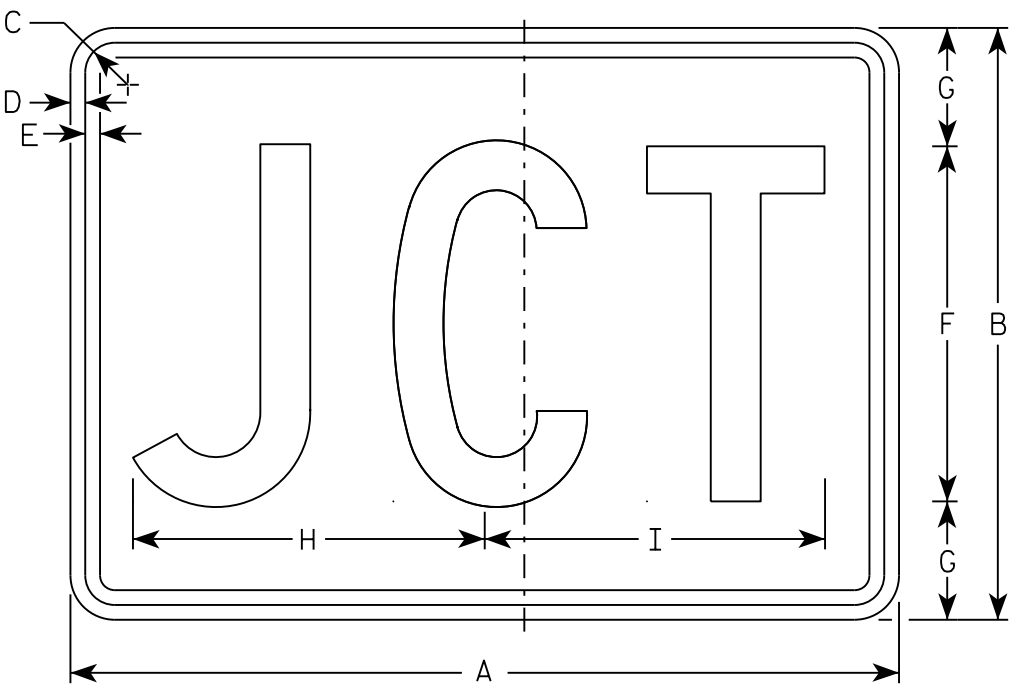


STATE ROUTE MARKER "32"
M1-6B FOR ASSEMBLIES

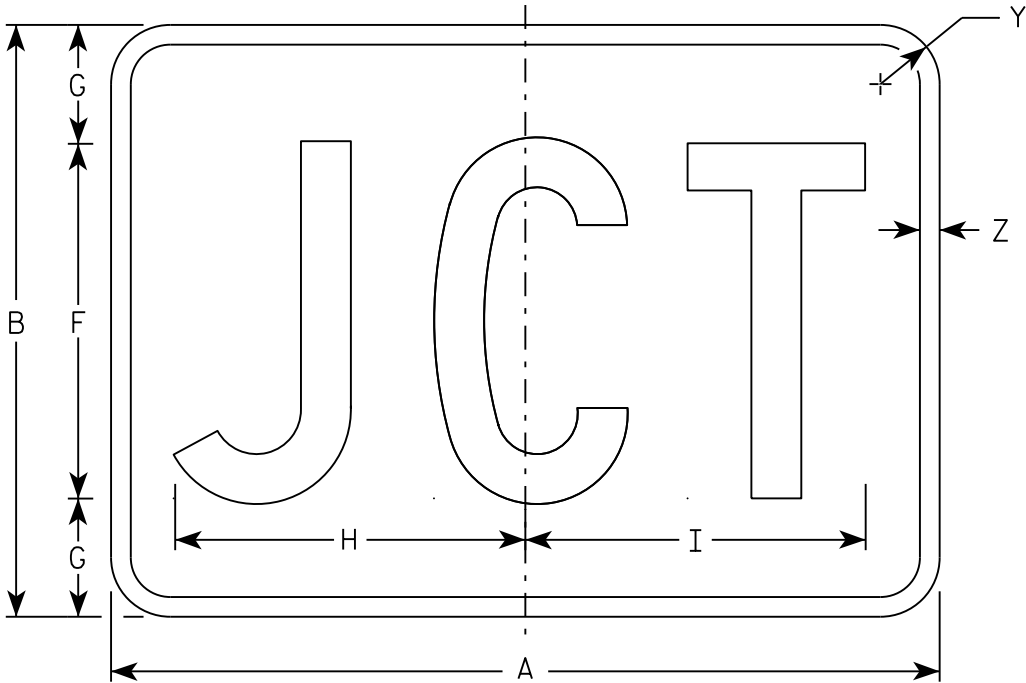
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/5/05 PLATE NO. M1-6B.2



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

- 1. Sign is Type II - Type H
- 2. Color:
 - Background - See note 5
 - Message - See note 5
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. M2-1 Background - White
 Message - Black
 MB2-1 Background - Blue
 Message - White
 MK2-1 Background - Green
 Message - White
 MM2-1 Background - White
 Message - Green
 MN2-1 Background - Brown
 Message - White
 MP2-1 Background - White
 Message - Blue
 MR2-1 Background - Brown
 Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

STANDARD SIGN

M2 - 1

WISCONSIN DEPT OF TRANSPORTATION

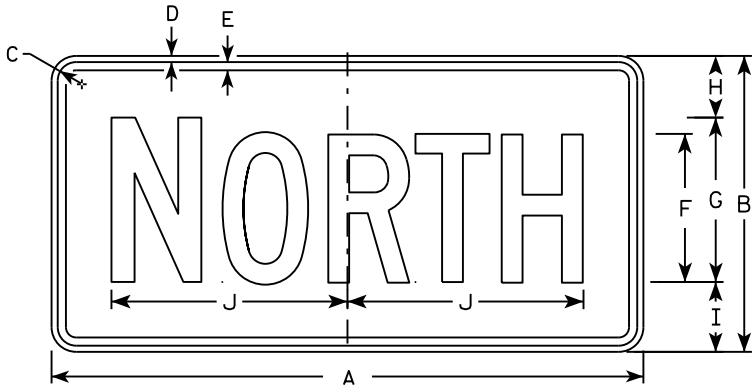
APPROVED

Matthew R. Rauch

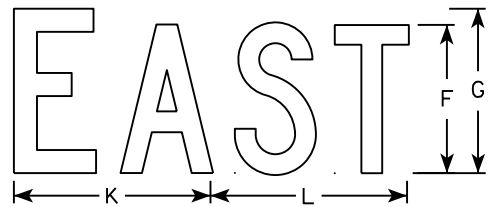
For State Traffic Engineer

DATE 10/15/15

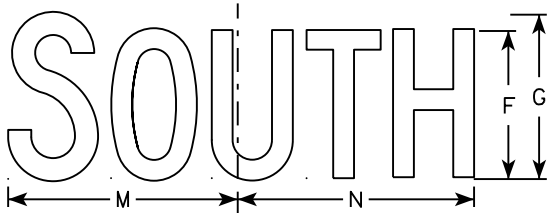
PLATE NO. M2-1.12



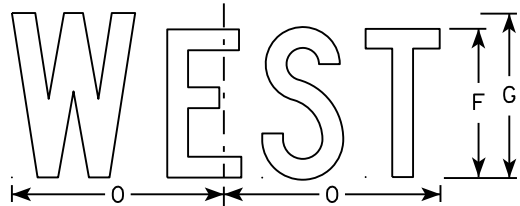
M3-1
MM3-1
MP3-1



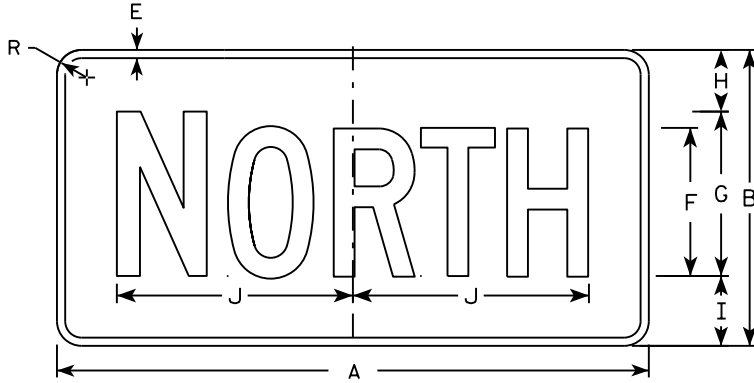
M3-2
MM3-2
MP3-2



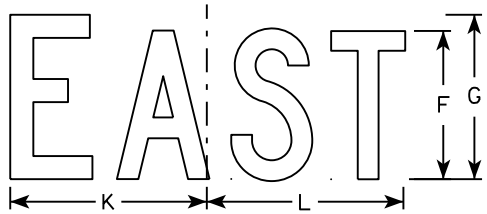
M3-3
MM3-3
MP3-3



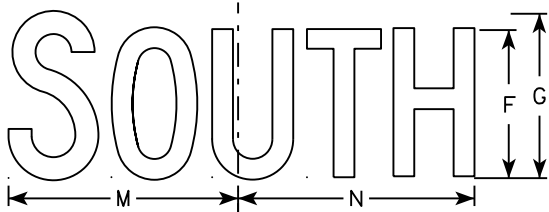
M3-4
MM3-4
MP3-4



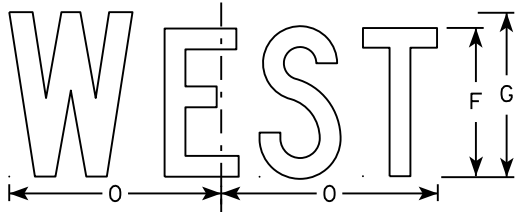
MB3-1
MK3-1
MN3-1



MB3-2
MK3-2
MN3-2



MB3-3
MK3-3
MN3-3



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White
MK3-1 thru MK3-4 Background - Green
Message - White
MM3-1 thru MM3-4 Background - White
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White
MP3-1 thru MP3-4 Background - White
Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thru M3-4
SERIES

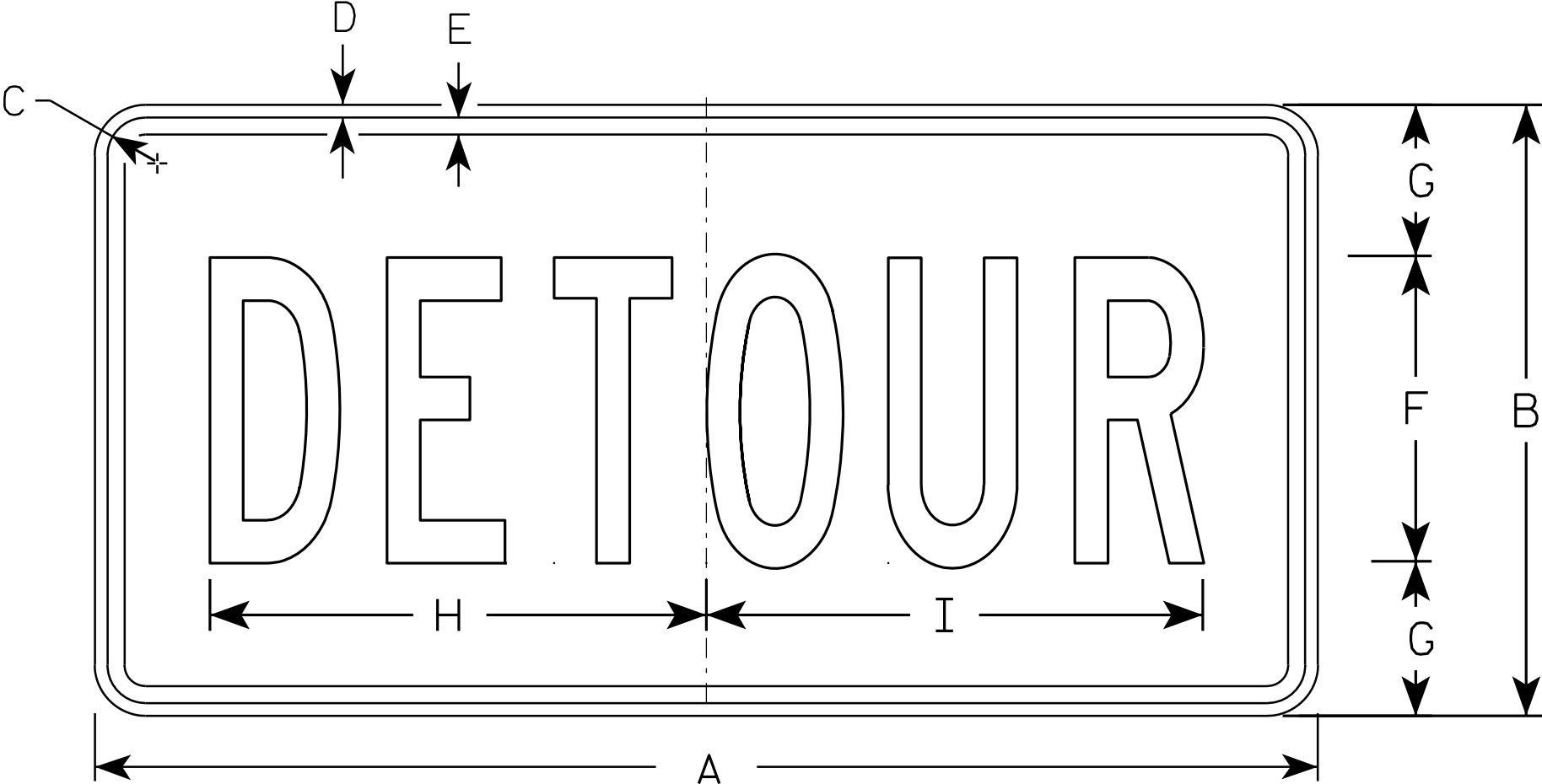
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M3-1.14

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - B
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



M4 - 8

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

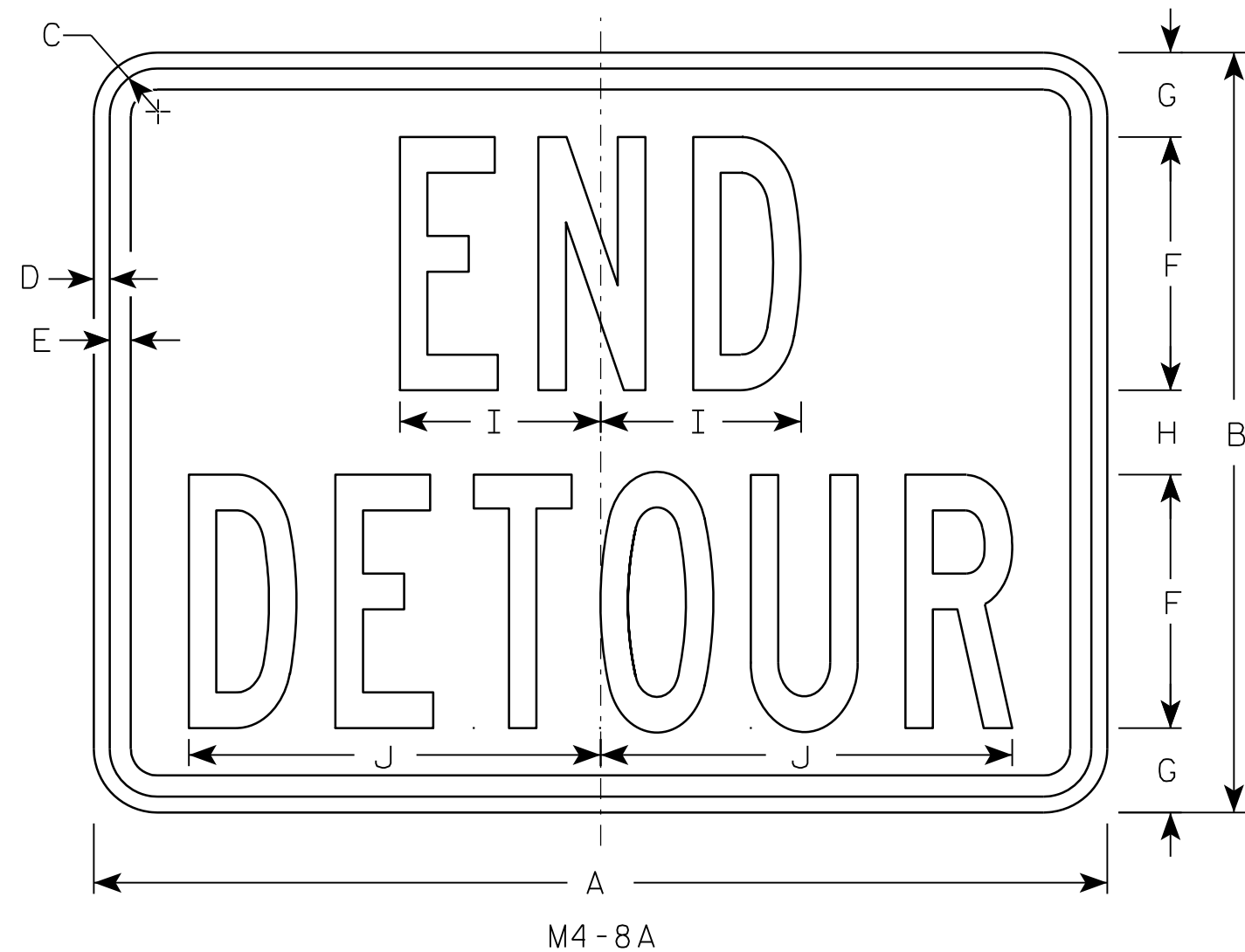
STANDARD SIGN
M4 - 8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

7



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

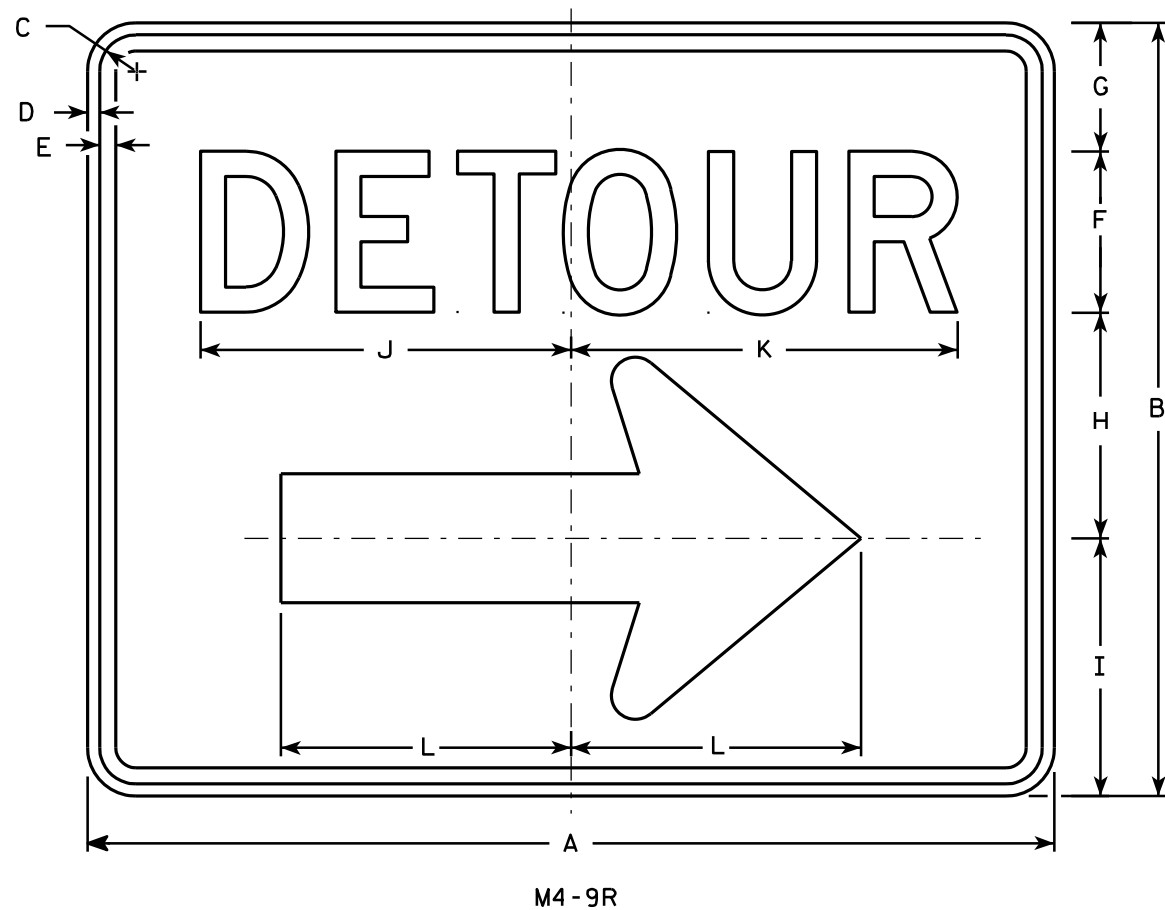
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGN
M4-8A

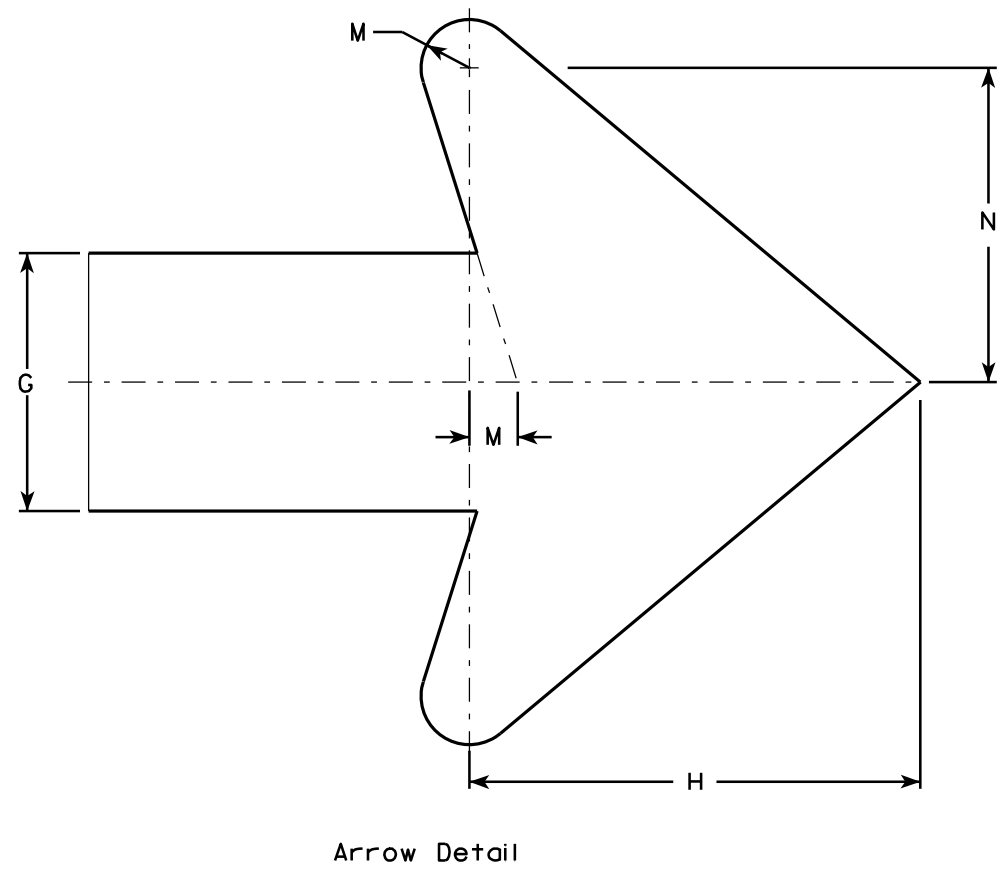
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2



- NOTES**
1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - Orange
Message - Black
 3. Message Series - D
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 5. M4-9L is the same as M4-9R except the arrow is reversed.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

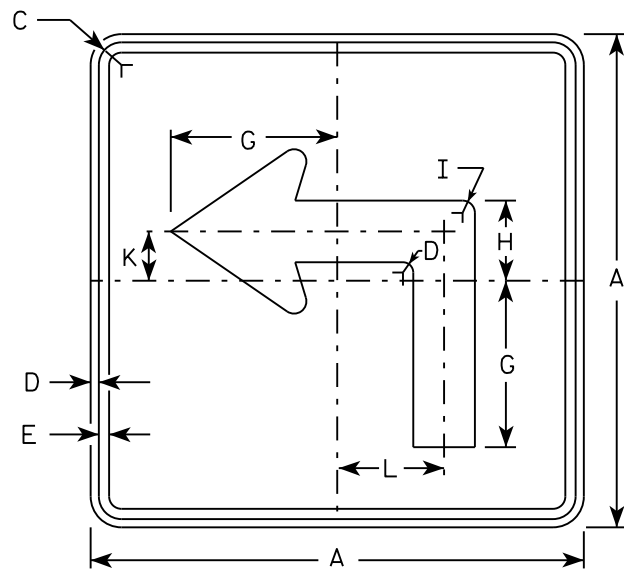
PROJECT NO:

HWY:

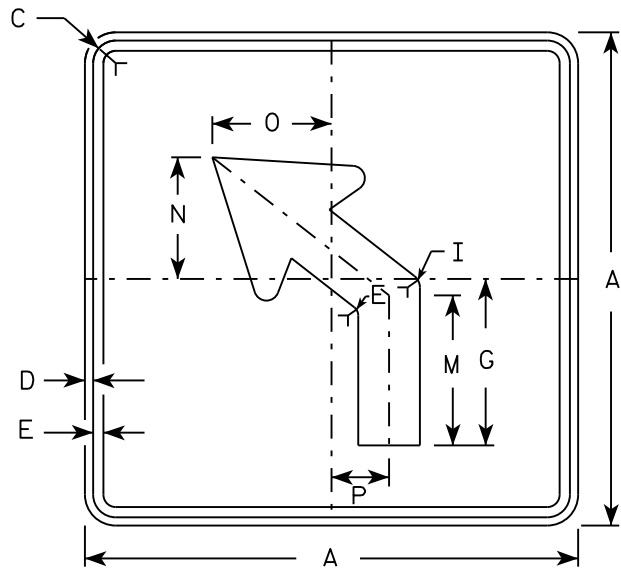
COUNTY:

SHEET NO:

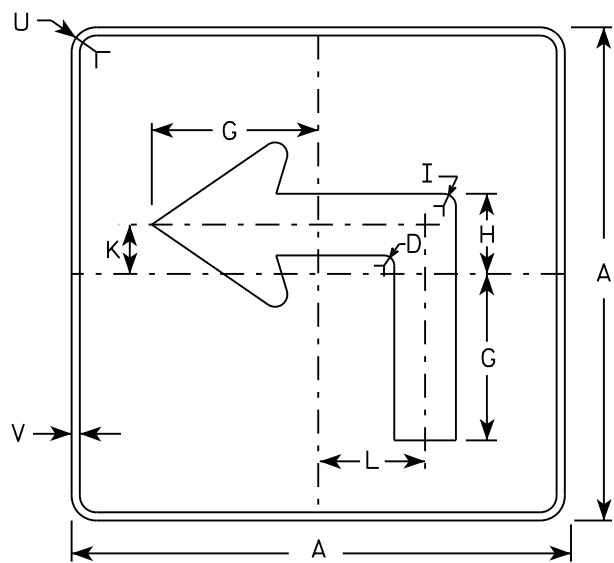
E



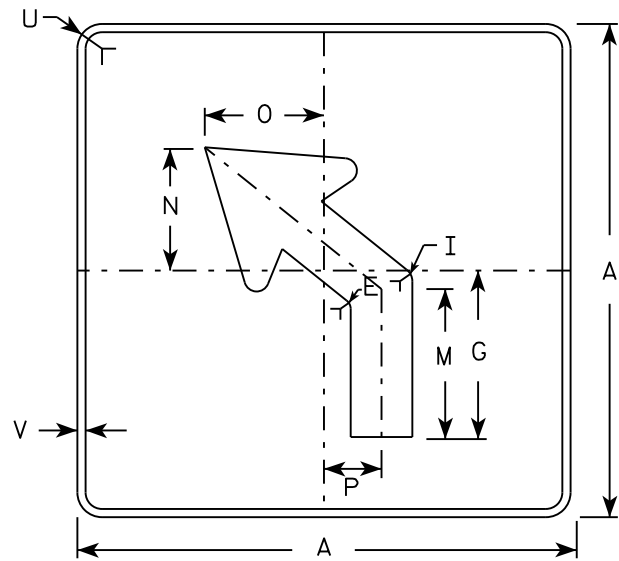
M5-1L
MM5-1L
M05-1L
MP5-1L



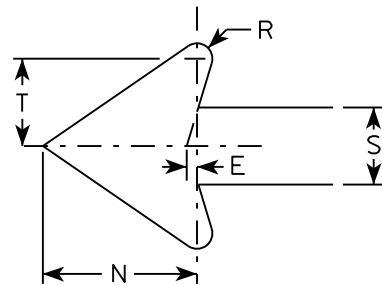
M5-2L
MM5-2L
M05-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

- Signs are Type II - Type H reflective except as shown
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- | | |
|-----------------|---|
| M5-1 and M5-2 | Background - White |
| | Message - Black |
| MB5-1 and MB5-2 | Background - Blue |
| | Message - White |
| MK5-1 and MK5-2 | Background - Green |
| | Message - White |
| MM5-1 and MM5-2 | Background - White |
| | Message - Green |
| MN5-1 and MN5-2 | Background - Brown |
| | Message - White |
| M05-1 and M05-2 | Background - Orange - Type F Reflective |
| | Message - Black |
| MP5-1 and MP5-2 | Background - White - Type H Reflective |
| | Message - Blue |
| MR5-1 and MR5-2 | Background - Brown |
| | Message - Yellow |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

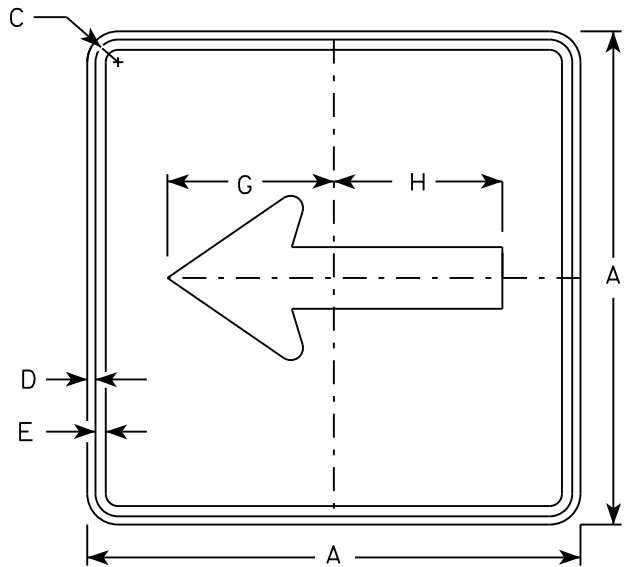
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

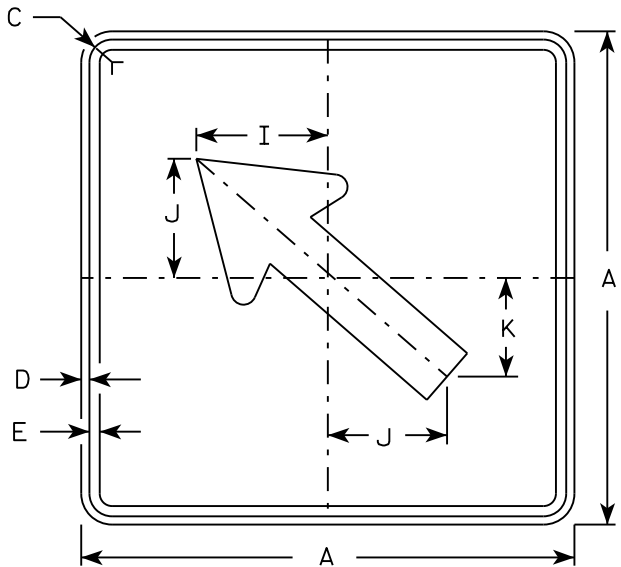
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

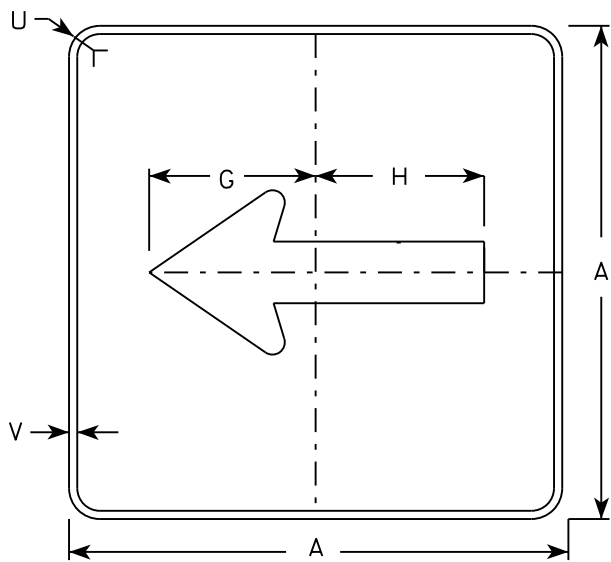
DATE 10/15/15 PLATE NO. M5-1.13



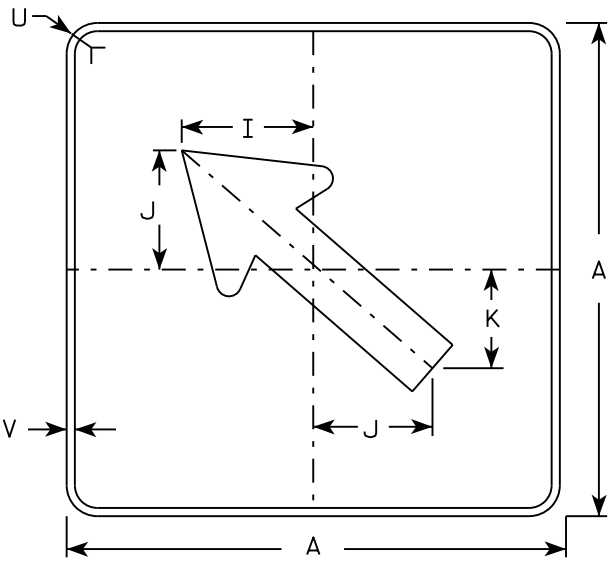
M6 - 1
MM6 - 1
M06 - 1
MP6 - 1



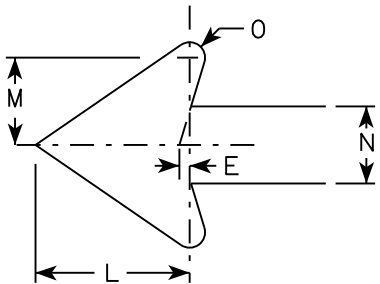
M6 - 2
MM6 - 2
M06 - 2
MP6 - 2



MB6 - 1
MK6 - 1
MN6 - 1
MR6 - 1



MB6 - 2
MK6 - 2
MN6 - 2
MR6 - 2



NOTES

- Signs are Type II - Type H except as Shown
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

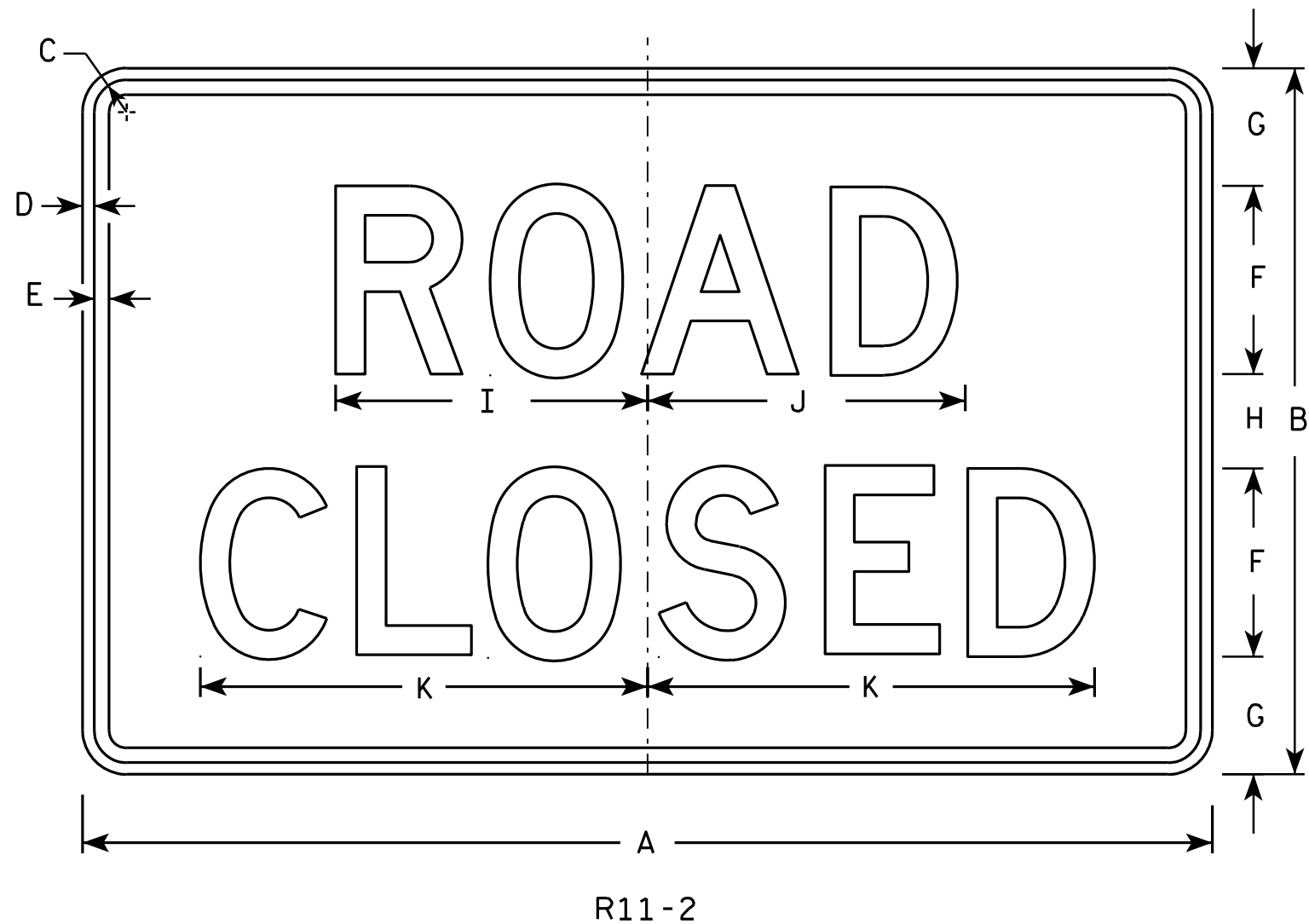
E

STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

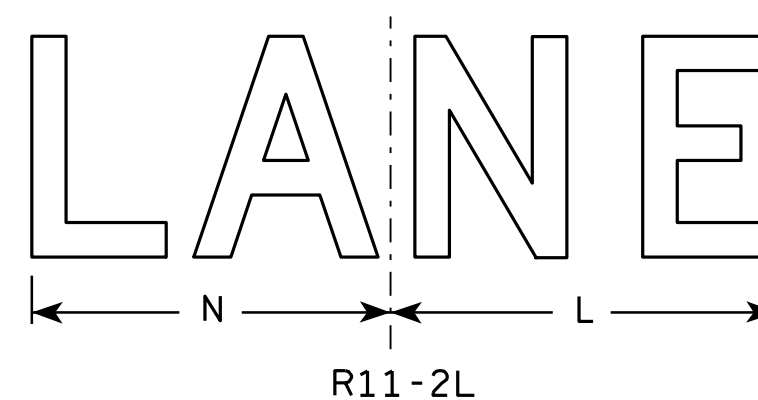
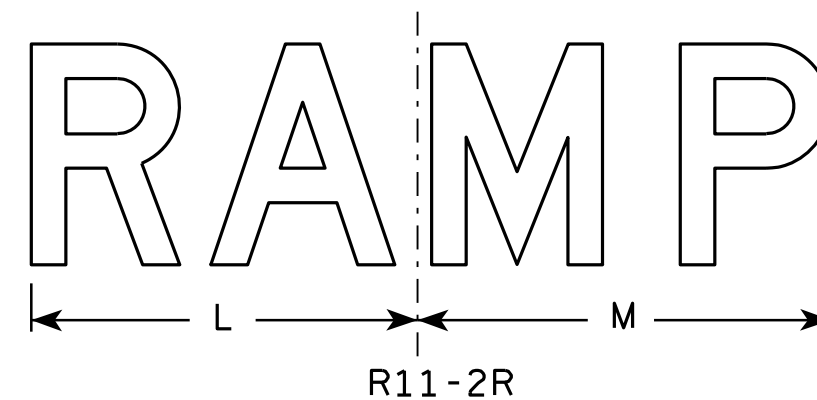
APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
2M	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
3	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
4	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
5	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0

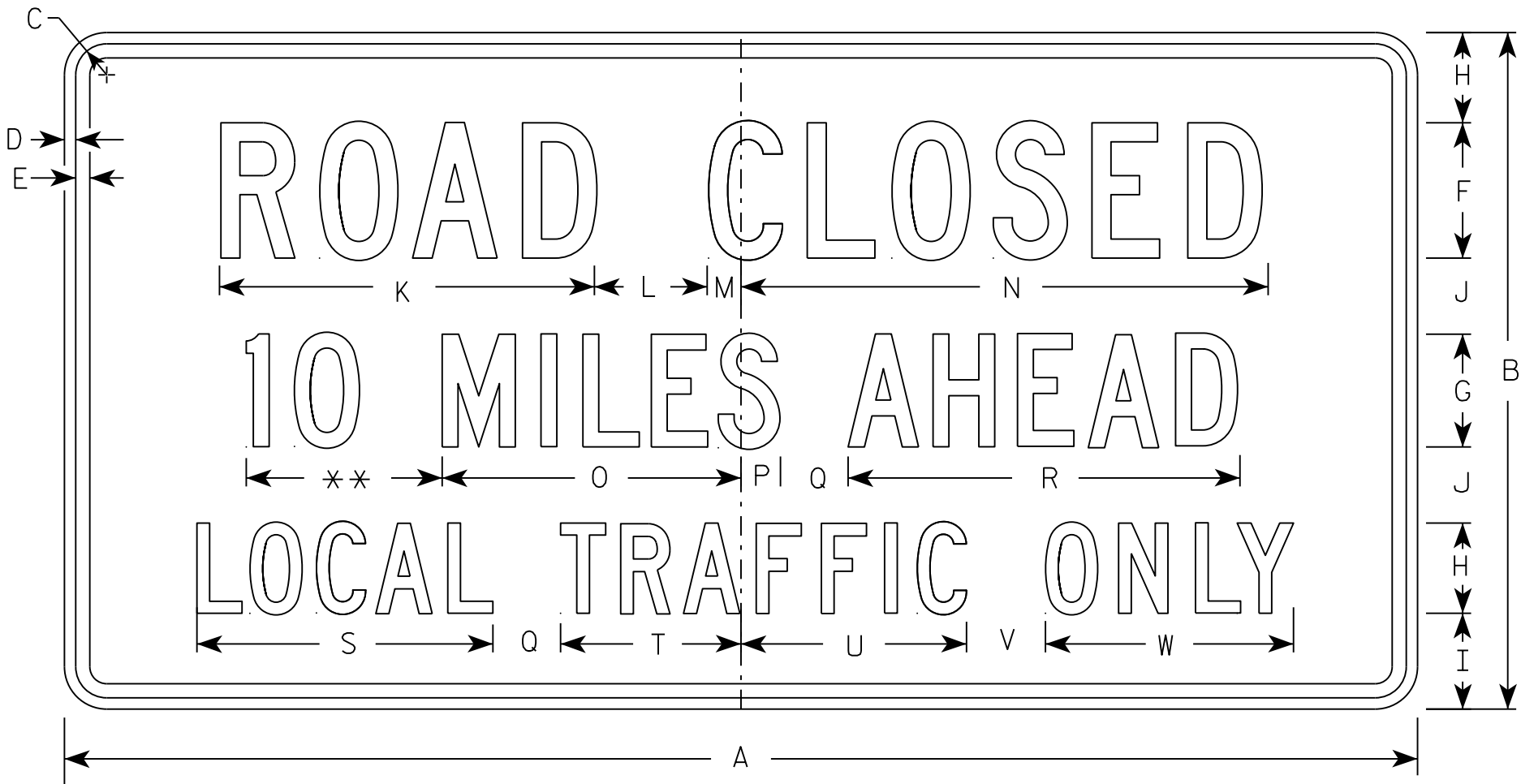
STANDARD SIGN R11-2

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO: HWY: COUNTY: SHEET NO: E

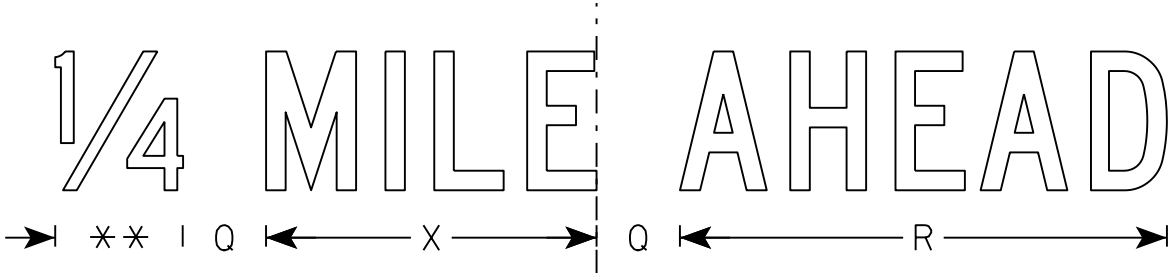
NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 3/8	1/2	5/8	4	3	2 1/2	2	2	11 1/8	3	1 1/8	15 1/4	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4	7 1/8			4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
3																											
4																											
5																											

STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 3/15/17 PLATE NO. R11-3.8

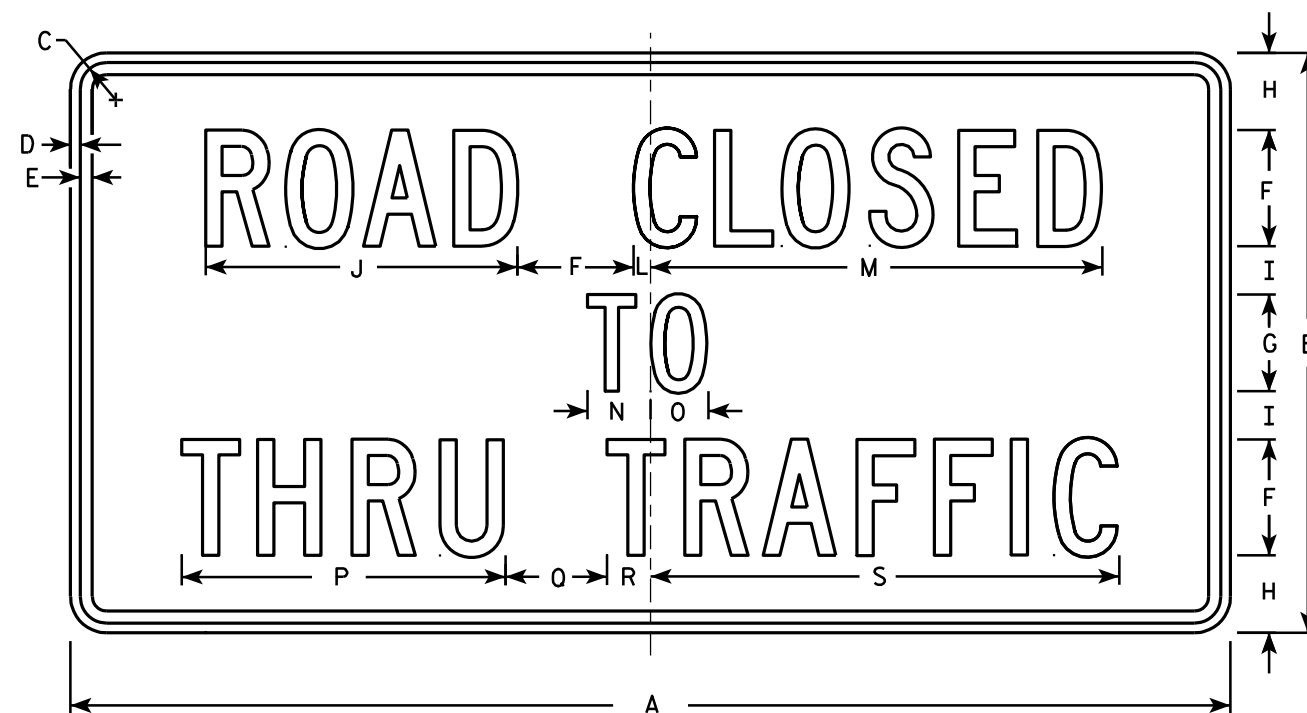
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



R11-4

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 3⁄8	½	5⁄8	6	5	4	2 ½	16 ⅛		7⁄8	23 3⁄8	3 ¼	3	16 ¾	5 ¼	2 ¼	24 ¼								12.5
2M	60	30	1 3⁄8	½	5⁄8	6	5	4	2 ½	16 ⅛		7⁄8	23 3⁄8	3 ¼	3	16 ¾	5 ¼	2 ¼	24 ¼								12.5
3																											
4																											
5																											

STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

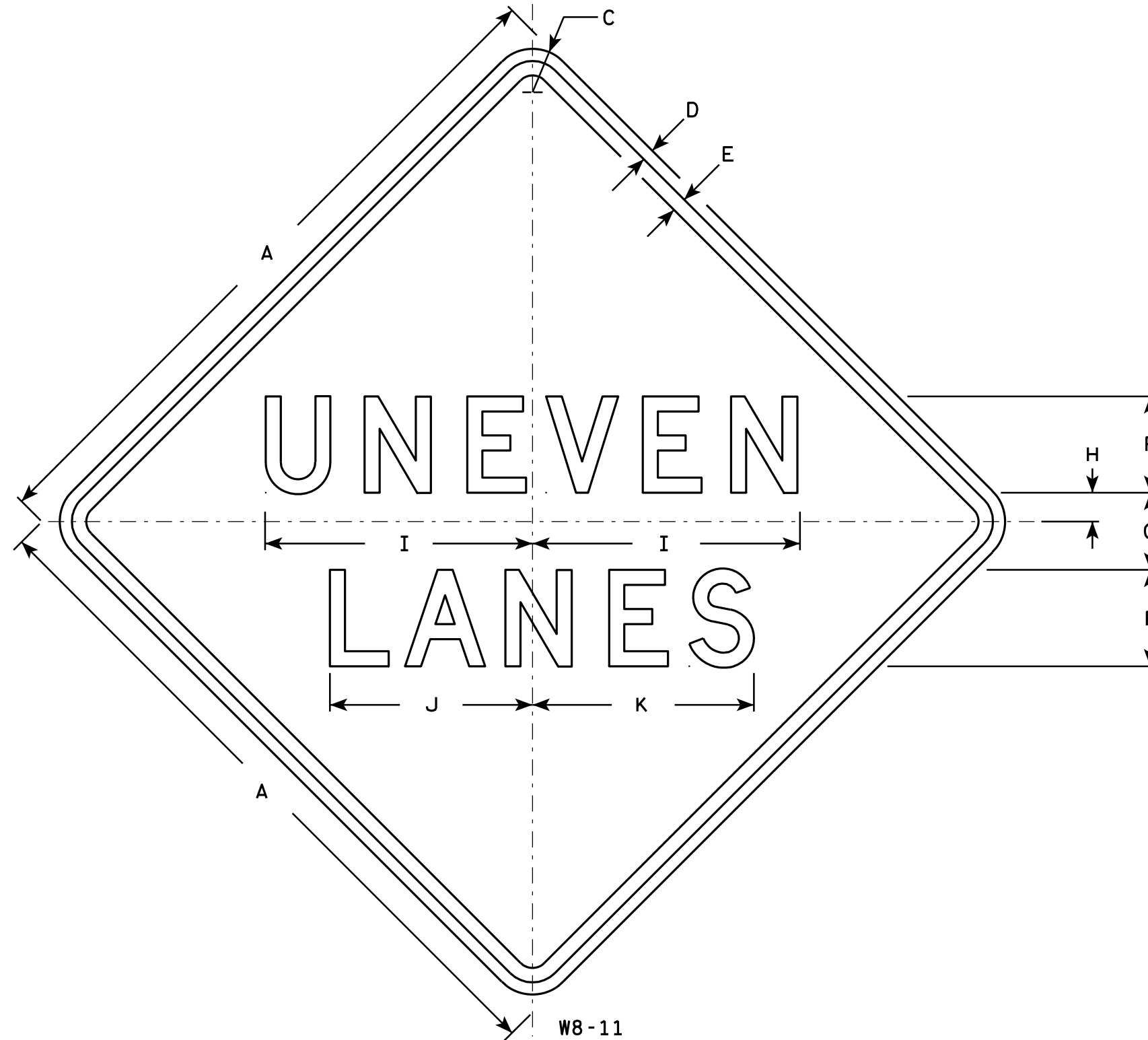
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5/8	5/8	3/4	5	4	1 1/2	13 7/8	10 1/2	11 1/2															9.0	
2M	36		1 5/8	5/8	3/4	5	4	1 1/2	13 7/8	10 1/2	11 1/2															9.0	
3																											
4	36		1 5/8	5/8	3/4	5	4	1 1/2	13 7/8	10 1/2	11 1/2															9.0	
5	48		2 1/4	3/4	1	7	5	2	18 1/2	14	15 3/8															16.0	

STANDARD SIGN

W8-11

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/22/11 PLATE NO. W8-11.4

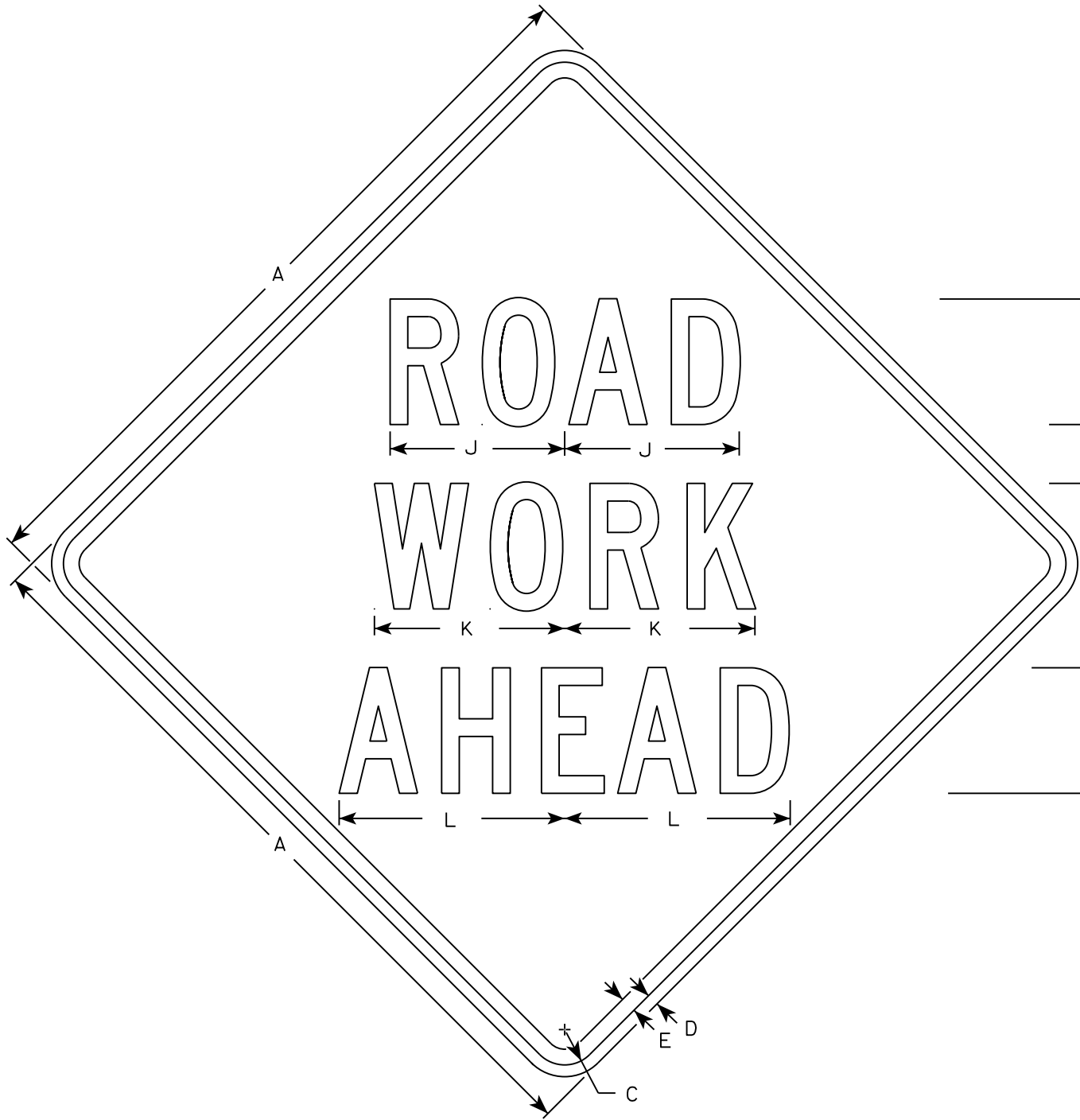
PROJECT NO:

HWY:

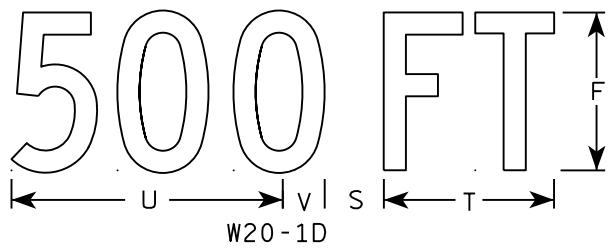
COUNTY:

SHEET NO:

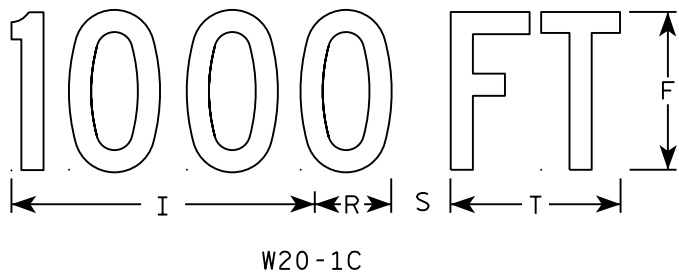
E



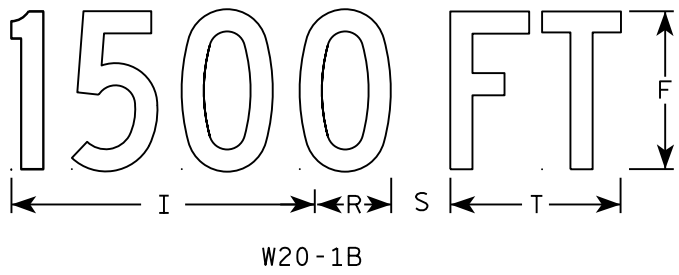
W20-1A



W20-1D



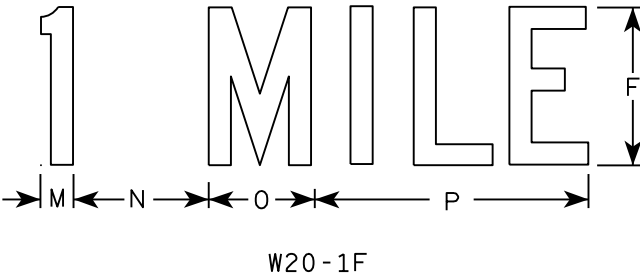
W20-1C



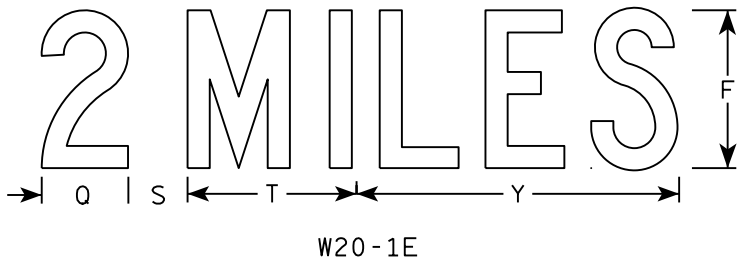
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

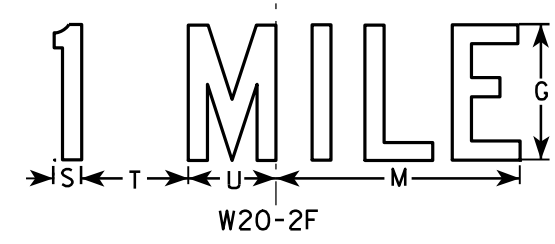
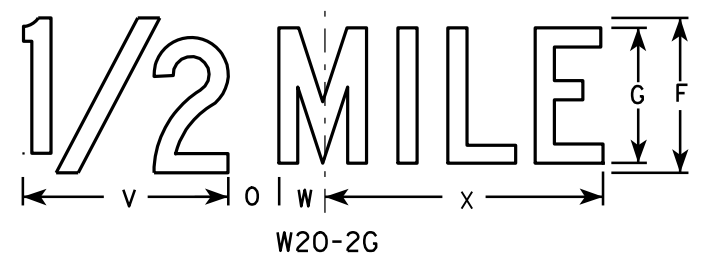
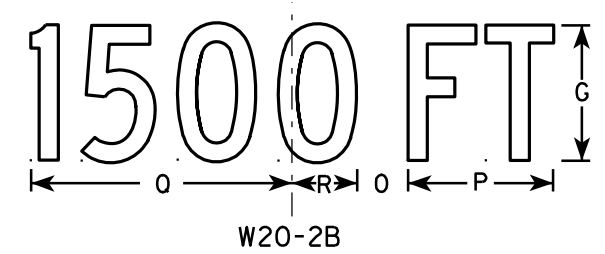
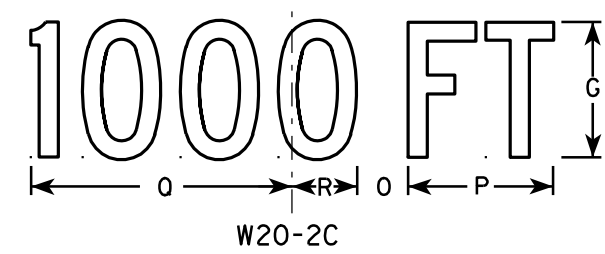
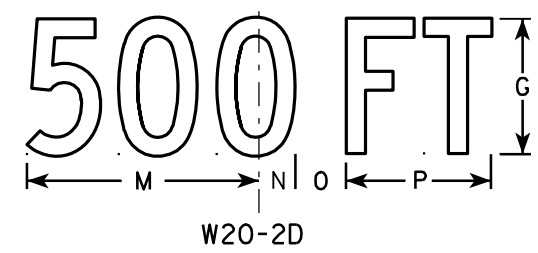
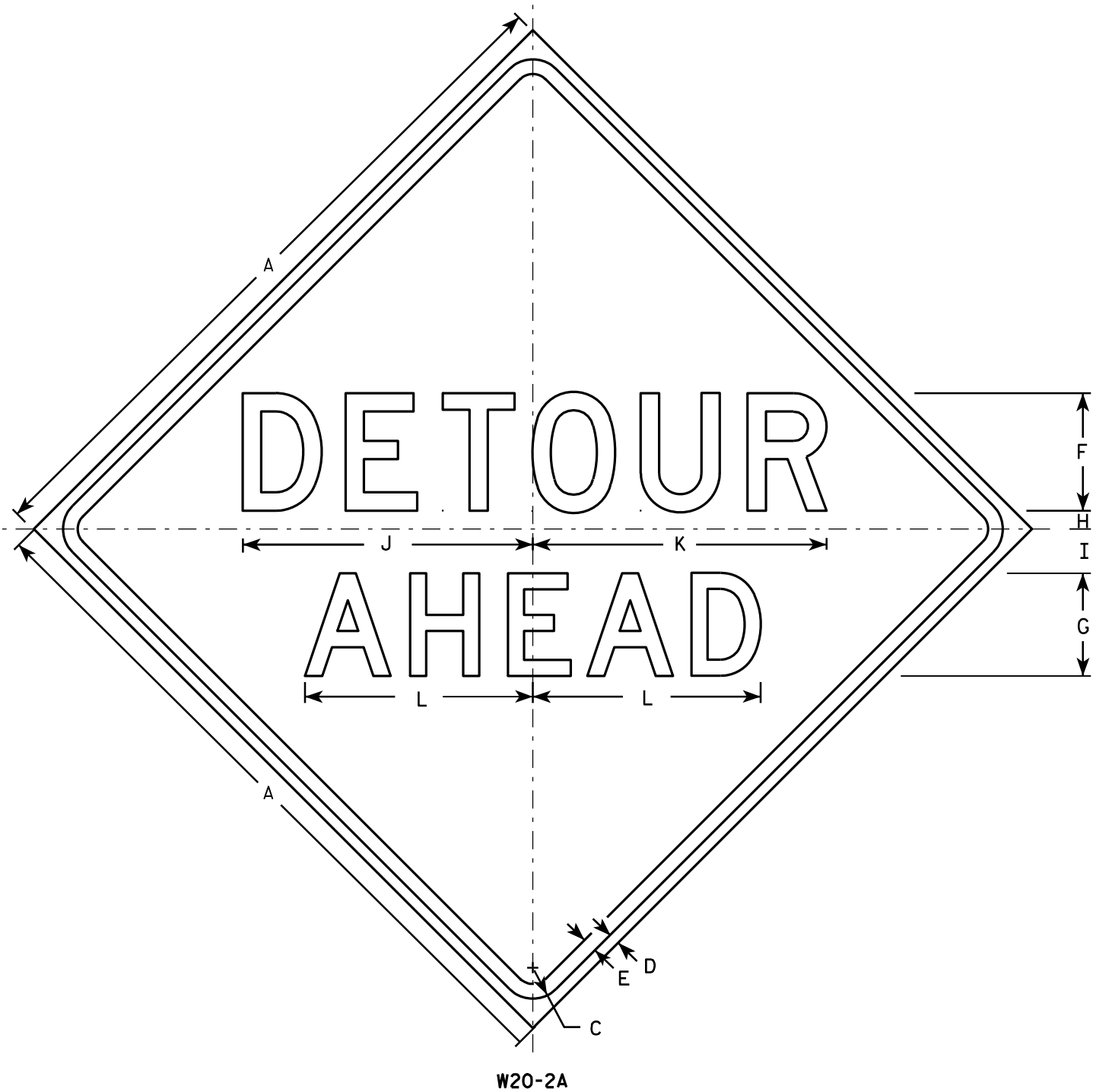
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
Line 2 is Series D for AHEAD and Series C for all other distances.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch* for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-2.6

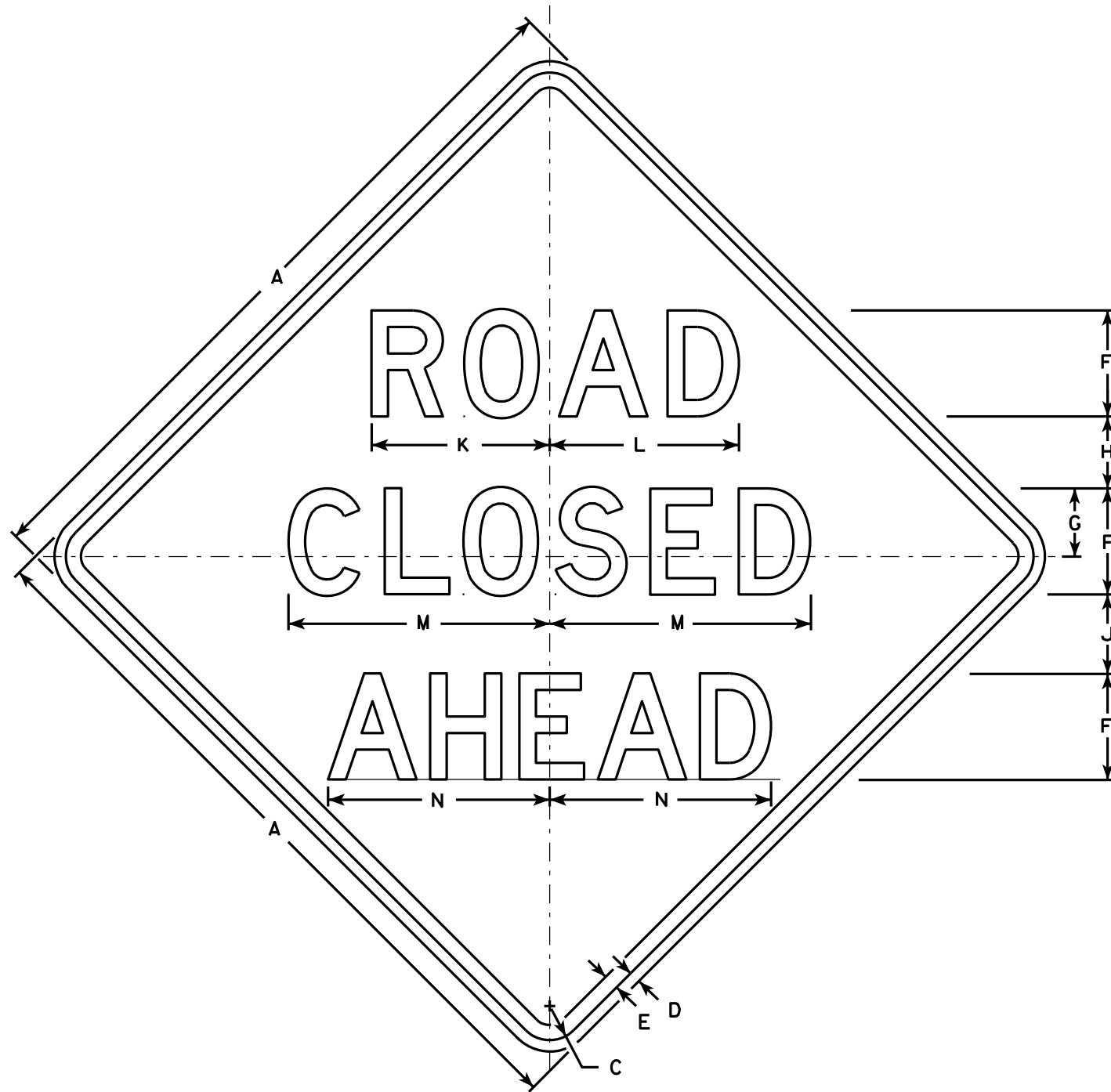
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



W20-3A

500 FT

W20-3D

1000 FT

W20-3C

1500 FT

W20-3B

1/2 MILE

W20-3G

1 MILE

W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

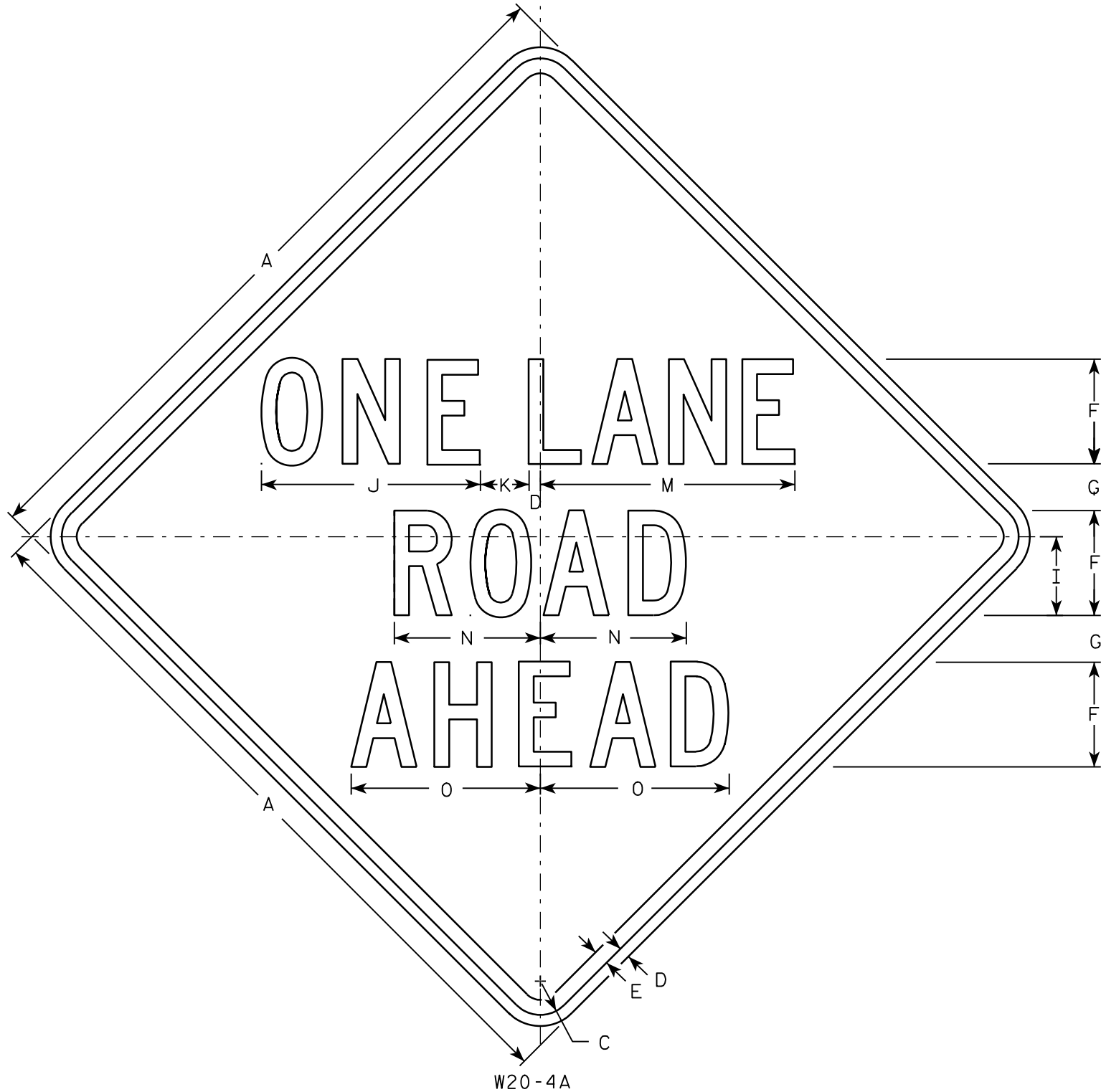
PROJECT NO:

HWY:

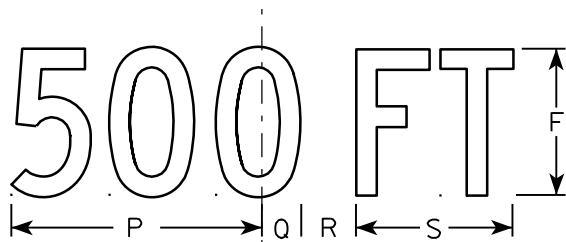
COUNTY:

SHEET NO:

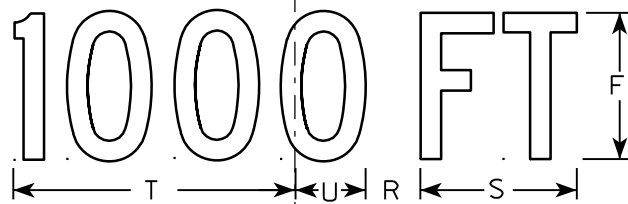
E



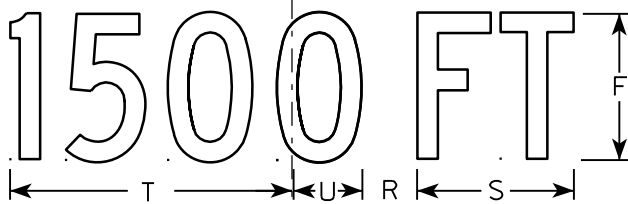
W20-4A



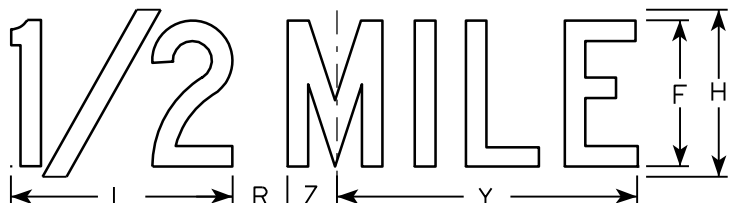
W20-4D



W20-4C



W20-4B



W20-4G



W20-4F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

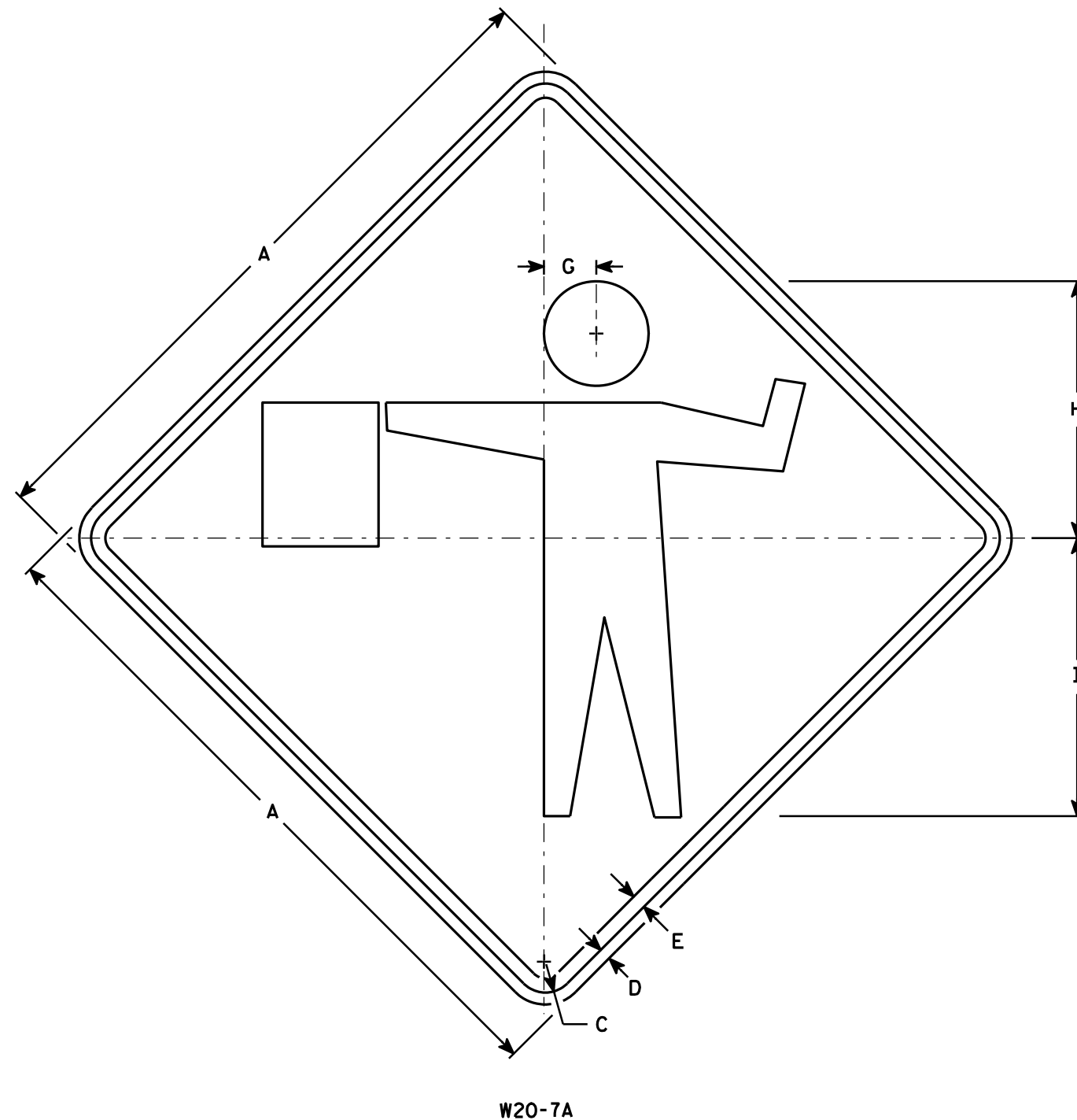
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 3/8	6	3 3/4	10 3/8	2 3/8	8	13 1/2	7	8 7/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-4A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-4.9



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		2 3/4	13 1/2	14 5/8																		9.00
2S	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
2M	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
3	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
4	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
5	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00

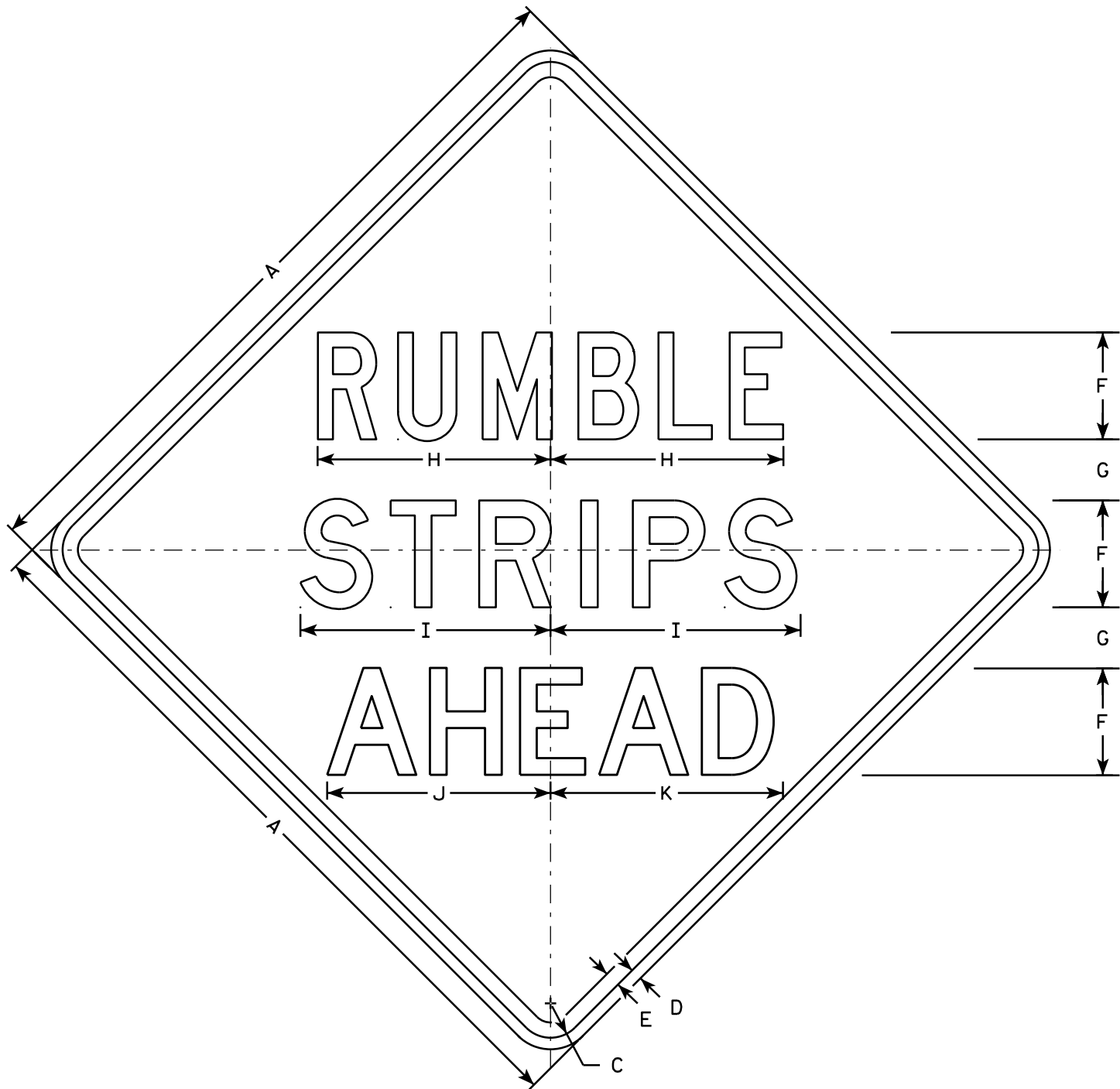
STANDARD SIGN
W20-7A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-7A.5

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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W21-65

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - see note 5
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Line 1 is Series C
Lines 2 and 3 are Series D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 1/4	10 7/8	11 5/8	11	11 5/8																9.0
2S	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
2M	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
3	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
4	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
5	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0

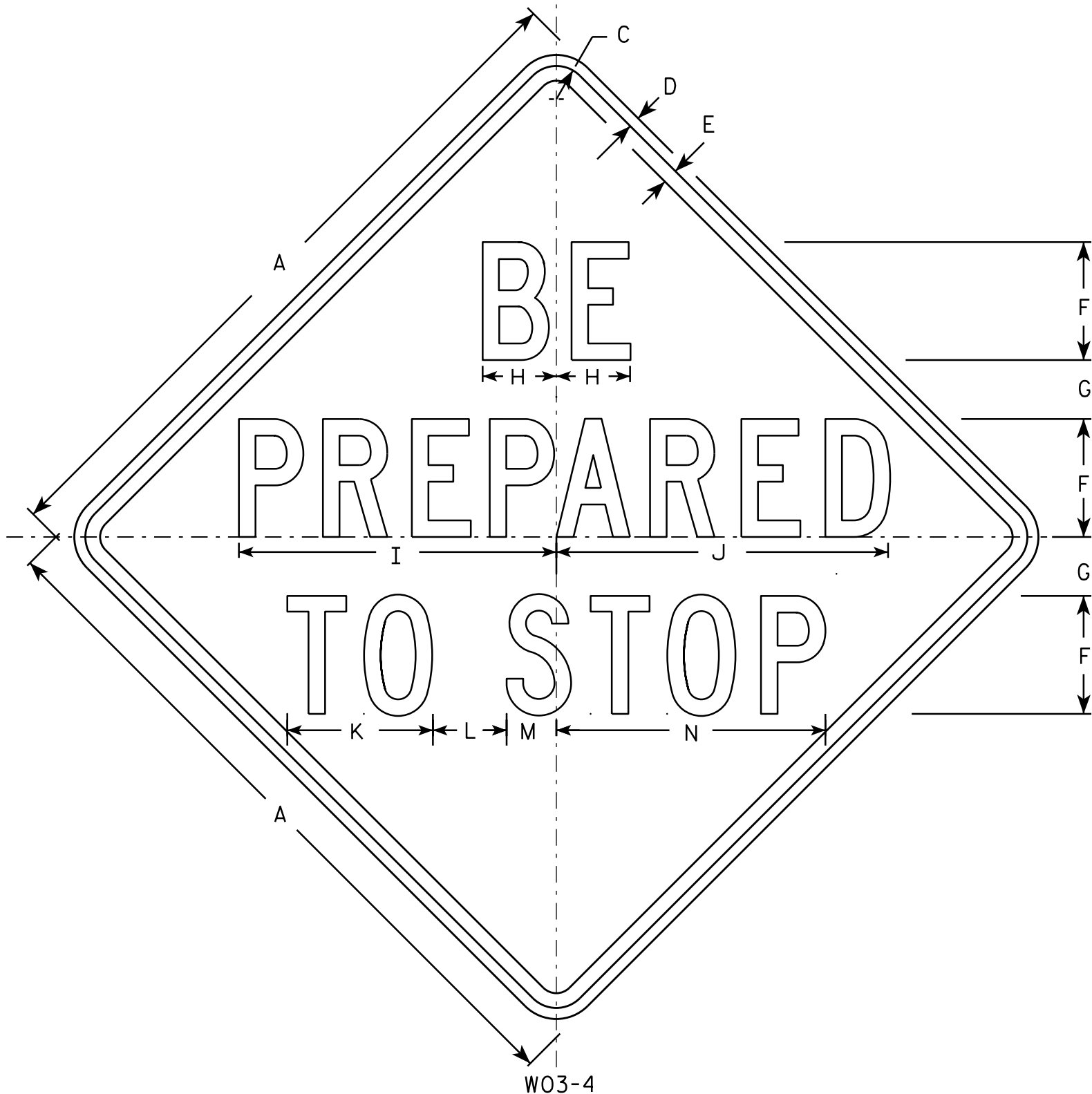
STANDARD SIGN

W21-65

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/28/14 PLATE NO. W21-65.1



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	6	2 1/2	3 3/4	15 7/8	16 7/8	7 3/8	4	2 3/8	13 3/4													9.0
2S	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
2M	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
3	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
4	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
5	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0

STANDARD SIGN W03-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

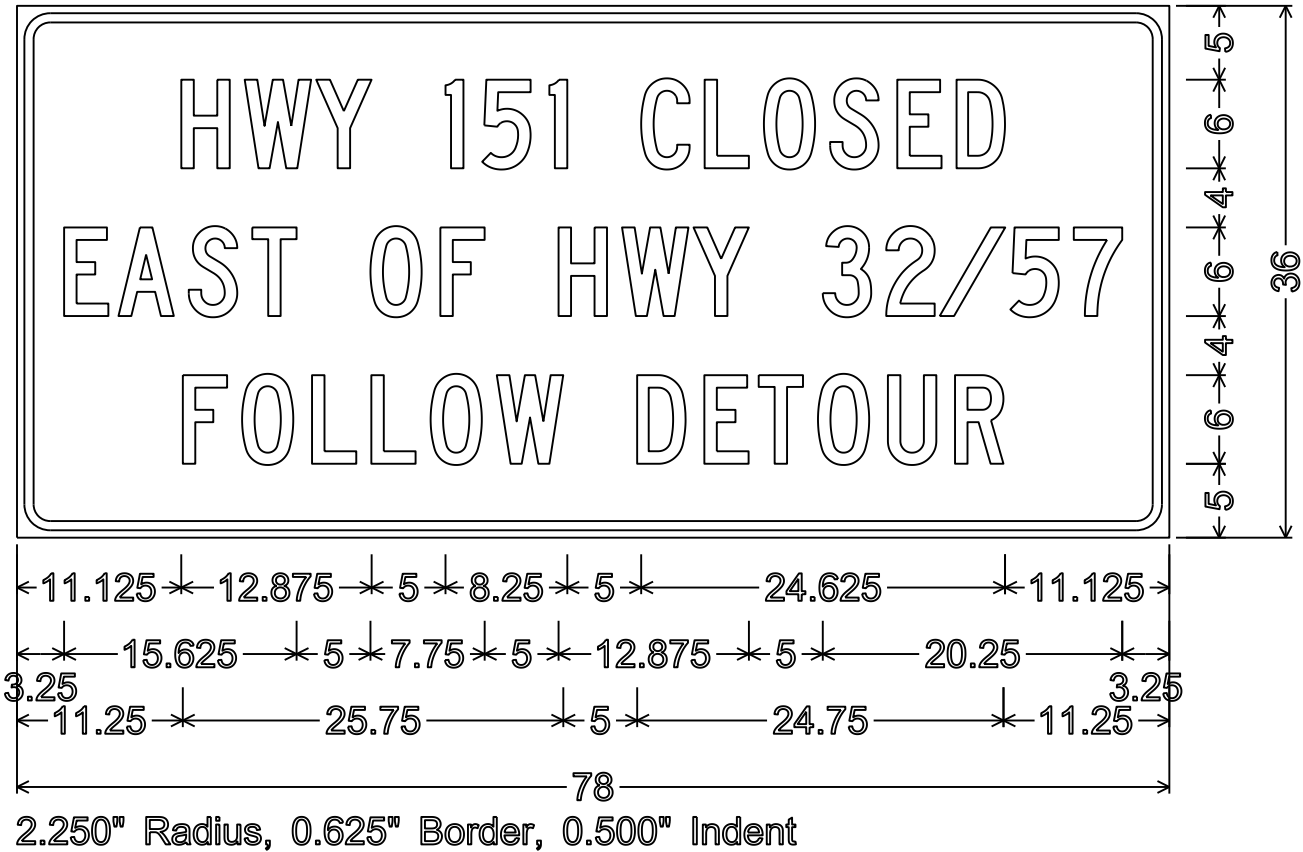
DATE 12/02/13 PLATE NO. W03-4.1

PROJECT NO: HWY: COUNTY: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W034.DGN PLOT DATE : 02-DEC-2013 14:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 8.999518:1.000000 WISDOT/CADDs SHEET 42

NOTES

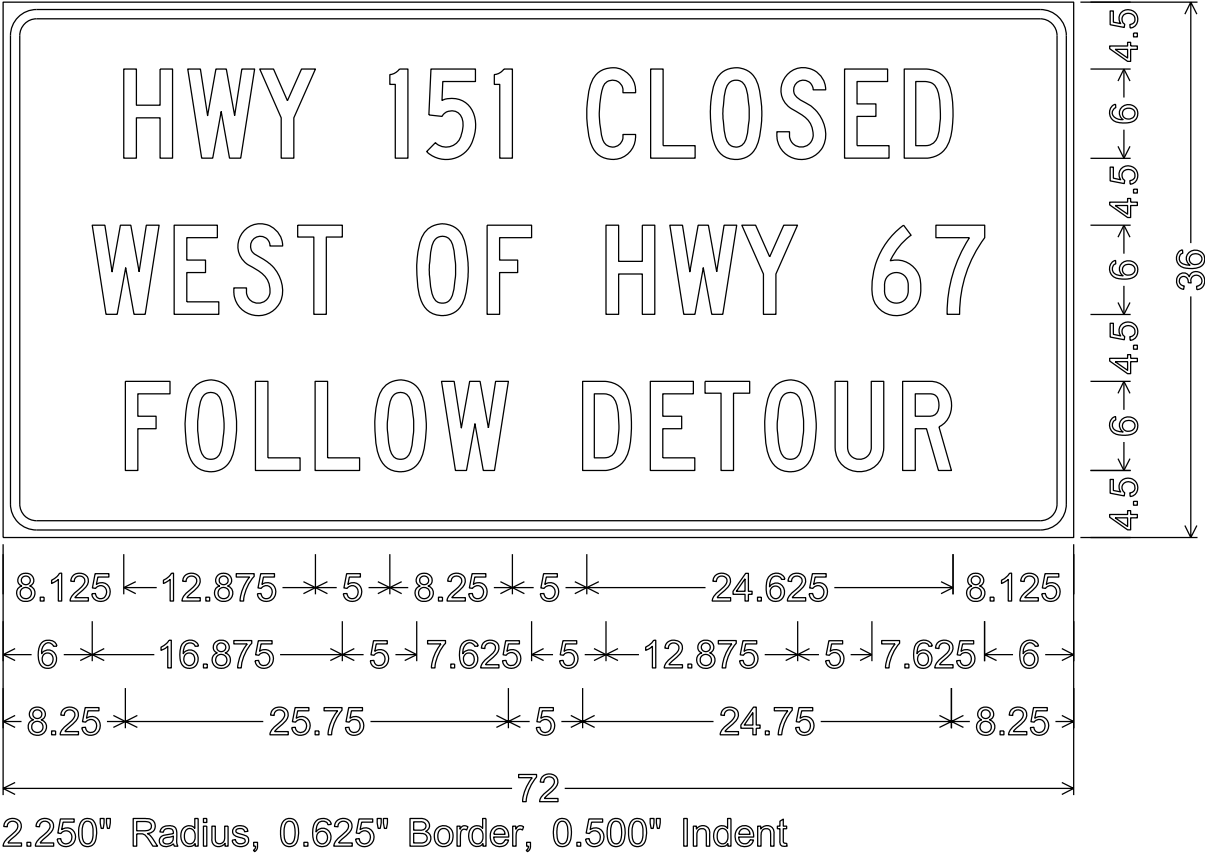
- 1. Fixed Message Type II Signs - Type F Reflective
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - C



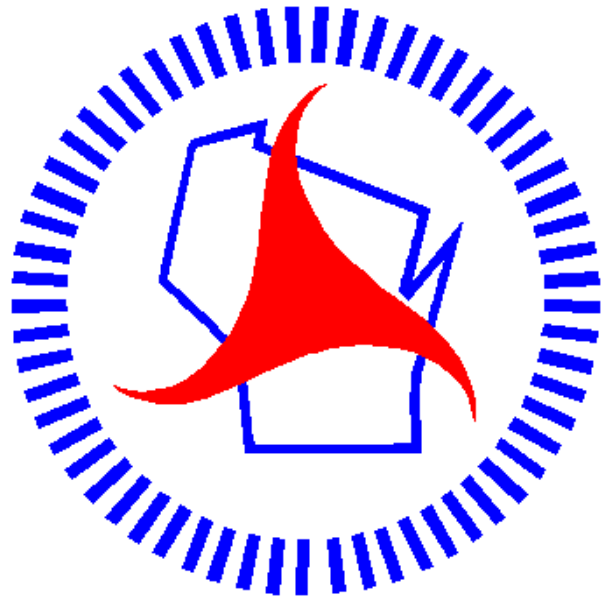
7

NOTES

- 1. Fixed Message Type II Signs - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - C



7



Wisconsin Department of Transportation

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through innovation and exceptional service.

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